

KODIAK MANAGEMENT AREA
ANNUAL COMMERCIAL AND SUBSISTENCE SALMON
MANAGEMENT REPORT, 1990

By

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INTRODUCTION

Annual Management Reports of Kodiak Management Area (KMA) commercial salmon fisheries have been compiled since statehood. These reports are intended to provide an overview of the area, the history of the commercial fishery, the status of the salmon resources, a synopsis of the current management, the specifics of the year's management actions, salmon escapements, and harvest.

Boundaries

The Kodiak Management Area (KMA) comprises the entire Kodiak archipelago and that portion of the Alaska Peninsula which drains into Shelikof Strait between Cape Douglas and Kilokak Rocks of south central Alaska (Figure 1). The archipelago is approximately 150 miles long, extending from Shuyak Island south to the Trinity Islands. The Alaska Peninsula portion is over 150 miles long and is separated from the archipelago by the Shelikof Strait which averages over 30 miles in width.

Management Units

Management of the KMA commercial salmon fisheries is structured around seven districts subdivided into 52 sections (Figure 2, Appendices A.1.- A.11.). These sections are occasionally further subdivided in season by emergency order (EO) to adjust fishing effort on unexpected salmon surpluses or deficits. Each section defines a traditional geographical harvest unit managed for specific stocks and/or traditional fishing patterns.

Production Potential

All five species of Pacific salmon are native to the KMA. There are 440 salmon streams within the KMA; 36 support sockeye salmon *Oncorhynchus nerka* populations, 4 have chinook *O. tshawytscha* populations, 174 have coho *O. kisutch* populations, 150 sustain chum *O. keta* populations, and all 440 streams have pink *O. gorbuscha* populations. Of these streams, 92 are within the Alaska Peninsula (Mainland District) portion, and the remainder within the Kodiak archipelago. The archipelago has 234 streams on Kodiak Island, 84 on Afognak Island, 18 on Shuyak Island, and 12 on the Trinity Island group (Table 1).

Salmon escapement goals were developed by the Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries, KMA management and research staff. Escapement goals have been developed for sockeye, pink, and chum salmon stocks by river system (Appendix B.1-B.3). Additionally, escapement goals have also been established for most coho populations and major chinook stocks (Appendix B.4-B.6). With the achievement of salmon escapement goals by species annually for the significant production systems, a stabilized long term production should be expected. It can be expected that environmental conditions encountered throughout the life cycle of these species will create fluctuations in salmon production.

Historical Perspective

Industry - Gear

The earliest documented commercial salmon gear were the cannery owned beach seine operations that fished near the terminus of Karluk Lagoon. Prior to statehood the Kodiak commercial salmon fishery was dominated by cannery owned fish traps combined with fishermen owned set gillnet, purse seine, and beach seine gear (in descending order of participation). During 1974 a "limited entry system" was adopted by the State of Alaska which restricted the number of individuals allowed to participate in commercial salmon fisheries. This system formally established post-statehood levels of specific gear type participation. Actual numbers of permits fished each year varies slightly (Table 2; Figure 3). The majority of permits (over 75%) are owned by Alaska state residents, with ownership varying little since 1985 (Table 3).

The geographical areas currently open to specific gear types have remained unchanged since 1974 with three exceptions. First in the mid 1970's that portion of the Karluk District between Rocky Point and Cape Uyak was closed to set gillnet gear in an attempt to accelerate the rebuilding of the Karluk sockeye and pink salmon stocks. No documented gillnet gear had fished there since the early 1960's and no existing gillnetter's were affected. Several purse seine locations within that area which could impact Karluk stocks were brought under direct management control. A second gear and area adjustment occurred in the late 1970's in the Alitak District. The common boundary between the Cape Alitak, Moser-Olga Bay and Portage-Deadman Sections was adjusted. This was done in an effort to reduce gear conflicts caused by an unclear boundary description. The area open to set gillnet gear was reduced from Cape Alitak to Tanner Head and was increased in Deadman Bay to a point northwest of Fox Island. The third gear and area adjustment was made in Zachar Bay to alleviate fixed and mobile gear conflicts. Closed water sanctuary markers were reduced (moved further into the bay) and the new area was designated seine-gear-only. The creation of this small area adjacent to the closed waters within Zachar Bay was consistent with that of other major westside Kodiak bays.

Industry - Processing

Commercial salmon processing within the KMA has evolved from small salting and pickling operations, to canning, and at present to multi-tasked operations producing fresh and frozen products, supplemental to canned salmon. Kodiak processors presently are exploring the marketability of various products, such as fresh and frozen whole salmon, frozen fillets, frozen minced, and salmon surimi. The physical and operational nature of Kodiak processing plants has evolved from scattered, seasonally operated canning operations, to efficient shorebased plants concentrated mostly within Kodiak's city limits.

Estimated sustained processing capacity of Kodiak shorebased plants is one million fish per day, which includes both frozen and canned product. Salmon processing ships generally operate in KMA only during years when large harvests of pink salmon are expected.

MANAGEMENT

The ADF&G Commercial Fisheries Division, is responsible for the management of the salmon stocks of the State of Alaska. In the KMA, the staff responsible for regulation of the commercial salmon fishery consists of an Area Management Biologist, two Assistant Area Management Biologists, and approximately 13 seasonal employees. The Kodiak salmon research staff includes an Area Research Biologist and six seasonal employees. A Regional Management Coordinator and a Regional Research Biologist oversee each of the operations.

Preseason salmon forecasts are developed jointly by management and research biologists. A preemergent pink salmon sac fry survival study has been conducted each spring by the KMA management staff for the past 25 years (Table 4). The data collected are used to forecast pink salmon returns (Appendix C.1. and C.2). ADF&G seasonal employees at fish counting weir stations collect salmon escapement data and sockeye salmon scale, sex, and length data for AWL analyses, which are used to develop system specific and area wide sockeye salmon forecasts (Appendix C.3.-C.6.).

Basic inseason management activities focus around daily evaluations of actual run strength in comparison to preseason expectations by species. The management staff's inseason duties include daily contact with all buyers to obtain current harvest information by area and species. Also, staff have daily contact with fishermen to discuss run strength and distribution along with obtaining feedback concerning inseason management activities. Salmon buildup estimates and escapement counts are collected from frequent fixed wing aircraft surveys of KMA bays and streams. Actual escapement counts are collected from up to 15 fish counting weir stations through daily single side band radio contact. Additional inseason information on returning sockeye salmon run strength is obtained from an ADF&G test fishery in the Alitak Bay District.

After analysis of the aforementioned data, the KMA Management Biologist writes an Emergency Order (EO) which describes details for an upcoming or continuing commercial fishery. The EO describes the starting date, time, and duration of the fishery along with the geographical areas (districts or sections) which are opened or closed to fishing, and puts them into regulation. A news release (NR) is then issued which publicly announces the fishery. Guiding the KMA staff are six "Management Plans" that describe biological and allocative constraints which the management staff must follow when structuring commercial salmon fisheries, five of which are Board of Fisheries (BOF) approved (Table 5). These plans are part of the Kodiak Area Commercial Salmon Fishery Regulations.

STOCK STATUS

Chinook Salmon

The Kodiak Area has two naturally occurring chinook salmon populations: the Karluk and Ayakulik stocks, and two introduced populations: the Dog Salmon and Pasagshak stocks. Escapements are enumerated via fish counting weirs on the Ayakulik, Karluk, and Dog Salmon

rivers and via aerial surveys on the Pasagshak River. No directed chinook commercial salmon fisheries occur on these stocks, though harvests incidental to directed fisheries on sockeye and pink salmon do occur. A moderate sport fish harvest on Karluk and Ayakulik stocks is realized, with commercially guided operations presently on the increase. No inseason assessment of the sportfish harvest is conducted and concerns exist regarding the impact of the sport fishery on these stocks. However, these populations appear healthy, escapement requirements are regularly met, and current regulations adequately protect these populations with the current levels of exploitation. In the Dog Salmon and Pasagshak river systems, sport fishing for chinook salmon is prohibited, to aid in the establishment of viable spawning populations. The Dog Salmon run is stable but is a relatively small population, whereas the Pasagshak population is, and will likely continue to be, a minor producer of chinook salmon.

Sockeye Salmon

There are 39 known sockeye populations in the KMA. Large runs occur in four systems: Karluk, Ayakulik, Upper Station, and Frazer Lake. These systems contribute about 90 percent of the KMA sockeye salmon production. Directed fisheries on these stocks are intense and require extensive management activities from June 9 through September 15. The Karluk and Upper Station systems have distinct early (June 9 - July 15) and late (July 16 - September 15) runs. The Ayakulik and Frazer systems are primarily early run systems. Stocks from all the systems are considered healthy. Recent high production from these systems is in part the result of rebuilding efforts started in 1970 (Figure 4).

The remaining sockeye salmon populations are considered minor, but significant. They include Afognak, Uganik, Akalura, Saltery, Kafia, Pauls, Buskin, Swikshak, Little, Thorsheim, and Portage systems, (in descending order of potential production). These systems account for approximately 5 percent of KMA current sockeye salmon production. Fish weirs were operated on Afognak, Uganik, Akalura, Saltery, Pauls, Buskin, and Portage systems for counting escapement. Timely and accurate escapement data collected from these weirs provides the best opportunity for stock specific sockeye management. The remaining systems are monitored by aerial survey with the management less precise. It is expected that enhancement and rehabilitation projects being considered for several of these systems, could increase production in future years.

The remaining 21 systems are minor systems that receive little to moderate exploitation by directed commercial effort.

Commercial sockeye salmon harvest strategies have not limited subsistence or sportfishing opportunities in the KMA. Both the Buskin and Barabara sockeye stocks receive substantial subsistence effort due to their close proximity to the communities of Kodiak and Port Lions, respectively. These two systems may be approaching maximum exploitation from subsistence effort alone. Sport fish interest in Barabara is minimal while the Buskin is seeing increasing effort. However, these systems will require close monitoring in the future to ensure biological protection and that future subsistence uses will not be jeopardized.

Coho Salmon

About 174 systems have been identified which support coho populations in the KMA, with 20 percent of these systems (35 streams) producing 80 percent of the total KMA production. In recent years coho salmon have experienced the largest increase in exploitation by sport, commercial, and subsistence users within the KMA. A data base is under development by ADF&G concerning escapement and production of coho, which will aid in the management of this fishery. With knowledgeable inseason management at least minimum escapements should be achieved annually. Concern exists for the remaining 80 percent (135 streams) where coho populations are relatively small and more susceptible to overexploitation. The rather precarious status of these small stocks will not improve unless a concentrated regulatory and management effort is implemented to safeguard these stocks.

Pink Salmon

All 440 known salmon streams within the KMA support pink salmon populations. Aerial surveys and weirs are the primary method of counting pink salmon escapement within the KMA. Pink salmon represent the foundation of Kodiak salmon production and represent, 80 percent of the total annual KMA salmon harvest. The historical database on harvests and escapements is extensive and a preseason forecast is annually produced. Prior to 1948, odd brood year pink salmon runs were larger than even year runs. However, from 1948 to present the pink runs have been larger during even years. With curtailment of the commercial salmon fisheries during 1989, as a result of the Exxon Valdez oilspill, all pink systems received excellent escapements. Overwinter stream and early marine environmental conditions were excellent for egg and fry survival for the 1991 and 1993 expected returns. The 1991 harvest and escapements were excellent. Combined, these factors may indicate a switch to odd brood year dominant run strengths in future years. The preemergent pink salmon fry sampling program examines egg to fry survival, annually during March and April. This data is compared to previous year's results to develop a preseason forecast of return and potential harvest (Appendix C.2.). The KMA pink salmon forecasts are reliable in projecting extremes for major systems and total production. The forecast results enable fishery managers to make decisions concerning fishing time and areas opened to fishing, especially during the early portion of the pink run. Production of pink salmon in the KMA should remain at above average levels provided that existing management strategies are retained and that adverse environmental conditions do not prevail. The long term status of this species is projected to be excellent.

Chum Salmon

Chum salmon management has received increasing emphasis over the past ten years in the KMA. Difficulties managing this species are associated with evaluating inseason run strength. Chum salmon escapement data is primarily gathered during aerial surveys. There is a need to develop a chum salmon stock management strategy to prevent overexploitation due to directed fishing on specific stocks.

Currently, chum escapement goals, historical harvest and escapement data, and inseason harvest and escapement data are being evaluated to improve management of this species. Similarities exist

between pink and chum salmon freshwater and early marine survival. Therefore, it may be possible to use pink salmon preemergent fry survival and forecasting information for chum salmon production. Combined with ADF&G's ability to take advantage of the multiple age class nature of annual chum returns to develop harvest projections (through catch sampling), the future status of this species is expected to be excellent.

1990 GENERAL SEASON SUMMARY

Forecast

Salmon returning to Kodiak in 1990 originated from chinook and sockeye (Table 6) escapements achieved in 1984-1986, coho escapements in 1986 and 1987, pink escapements in 1988 and chum escapements in 1985-1987. The total forecasted salmon harvest for 1990 was expected to be 15,233,000. Of these, the projected commercial harvest for chinook was expected to be 8,000, sockeye 2,540,000, coho 190,000, pink 11,790,000, and chum 705,000 (Table 7).

General Harvest Information

The 1990 KMA commercial salmon fishery was an average year for total salmon harvested, but a record year for the sockeye harvest. Salmon prices were slightly below average for all species with the total exvessel value of the harvest estimated at \$52,987,000. This was the second highest dollar value since 1970 (Table 8 and 9), excluding 1989 estimates that were unrealized in lieu of the Exxon Valdez oil spill, and reflects the record number of higher valued sockeye salmon harvested this season.

The 1990 commercial salmon season extended over a 126 day period beginning on June 9 and ending with the last recorded landing on October 13. A total of 12,121,744 salmon were harvested. By species, this year's harvest was comprised of 18,806 chinook (.16% of the total 1990 salmon harvest); this was the second largest harvest of chinook salmon on record next to 1988 in which 22,000 chinook were harvested. The sockeye harvest of 5,247,566 (43.29% of the total 1990 salmon harvest) is the highest on record with 1901 being the previous high with a recorded harvest of 4.83 million sockeye. 293,819 coho (2.42% of the total 1990 salmon harvest) were harvested which ranks as the third largest harvest on record behind 1982 and 1988 in which 344,000 and 300,000 coho were harvested. The pink salmon harvest of 5,983,812 (49.36% of the total 1990 salmon harvest) was the lowest recent even year harvest since 1974 when 2.6 million pinks were caught. The chum return was also weaker than anticipated with a harvest of 577,741 fish (4.77% of the total 1990 salmon harvest) which is well below the recent 10 year average of approximately 1.0 million fish. (Table 10; Figures 6,7,8 and 9).

Information on the 1990 commercial salmon season, including harvest statistics and harvest breakdowns by date, area, and gear type are reported in (Appendices D.1. - D.5.). Kodiak District tides are reported in (Appendix E.1.).

Industry

During 1990, there were 15 fish buyers operating processing plants; 13 of these plants were shorebased and 4 were floating processors (Table 11).

A total of 560 permit holders participated this season, of which 21 were beach seine, 185 were set gillnet and 354 were purse seine permits. The 1990 effort levels were above average for purse seine and gillnet gear and approximately average for beach seine gear (Figure 3). By gear type, beach seiners averaged \$10,291 and caught less than 1% of the total harvest; set gillnetters averaged \$70,457 and caught approximately 24% of the total harvest; and purse seiners averaged \$112,251 and caught approximately 76 percent of the total harvest (Table 12 and Figure 5).

ADF&G Management

Harvest Strategy

The 1990 Harvest Strategy for the Kodiak Area Commercial Salmon Fishery, RIR 4K90-24, (Malloy et al. 1990) was released June 1990. This document contains a synopsis of the expected chronology of the 1990 commercial salmon fisheries by species (Figure 10), projections on the expected harvest, escapement requirements, and a summary of the regulatory plans which guide management throughout the season.

There are six management plans used to conduct the commercial salmon fishery within the KMA (Malloy et al.1990). Five of these plans are BOF approved management plans; and are the Cape Igvak, North Shelikof Strait, Alitak Bay District, Westside Kodiak Sockeye, and Crescent Lake Coho Management Plans, which are part of the Kodiak Area Commercial Fishery Regulations (Table 5, Appendix F.1.). The sixth management plan is associated with production of the Kitoi Bay Hatchery.

Implementing these plans and other inseason management actions required the issuance of 41 emergency orders over a 104 day period, and affected fishing time in 48 management units (Figure 11, Appendix F.2.). This level of emergency order activity reflects the inseason action required to not only achieve the aforementioned management considerations, but also the inter- and intra-gear allocation considerations crucial to a successful management program.

The Kodiak Area has two Board approved management plans which address Kodiak seine fishermen's ability to target their fishing on migrating sockeye which are destined for spawning systems outside the Kodiak Area. They are the Cape Igvak Management Plan and the North Shelikof Straits Sockeye Management Plan. The following is a discussion of the results of the implementation of these plans in 1990.

Cape Igvak Fishery - June 9 through July 25. This plan has been in effect since 1978 and allocates a percentage of the Chignik sockeye harvest (15 percent) to Kodiak fishermen when specific biological and harvest criteria are met in Chignik. There was no fishing in June due to the late timing of the early Chignik return. Fishing began on July 10 and continued through July 25.

One hundred fifteen (115) vessels participated harvesting 134,450 sockeye, 6,300 coho, 2,180 chinook, 51,900 pink and 50,170 chum. The percent harvest of Chignik bound sockeye was 7.4%.

The North Shelikof Straits Sockeye Salmon Management Plan is in effect from July 6 through July 25. 1990 was the first year this plan has been in effect. It is intended to allow traditional fisheries in the area to be conducted on Kodiak Area salmon stocks while minimizing the directed harvest of Cook Inlet bound sockeye. The management plan was enacted to prevent a repetition of the non-traditional harvest pattern which occurred in 1988 through the use of specific sockeye harvest caps. Evaluations of the origins of sockeye salmon harvested in these area indicates a dominance of Cook Inlet bound sockeye present in this area when this fishery occurs (Barrett 1989). The Southwest Afognak Section's cap is 50,000 sockeye and the remaining management units included in this plan (the Dakavak Section north to Cape Douglas and the N.W. Afognak and Shuyak Island Sections) have a combined 15,000 sockeye harvest cap. Specific "Seaward Zones" would close to fishing once a "cap" is achieved for the remaining time the plan is in effect. In 1990, the 15,000 cap for the "North Shelikof Management Units" was met and exceeded during the second general pink salmon opening which began at Noon on Friday, July 13.

Fishing time for this opening was 57 hours for management units located in the Mainland District and 81 hours for management units in the Afognak District. An announcement was issued at 12:00 noon on Sunday July 15 and effective at 9:00 P.M. Sunday which closed the "Seaward Zones" of the Northwest Afognak and Shuyak Island Sections for the remainder of this fishing period. Management units on the Mainland were previously announced to close at 9:00 P.M. on Sunday July 15.

Because the 15,000 salmon cap had been met, the "Seaward Zones" of the management units affected by this cap remained closed during the next fishing period which ran from 12:00 Noon July 20 to 9:00 P.M. July 23 on Afognak and 12:00 Noon July 20 to 9:00 P.M. on July 22 on the Mainland. No restrictions were placed on the Southwest Afognak Section since the 50,000 fish cap was not achieved. At the time initial restrictions in the North Shelikof "Seaward Zone" went into effect the accumulative harvest was as follows:

The Northwest Afognak and Shuyak Island Section - 3,240 sockeye
with an average weight of 4.06 lbs.

The Mainland Units - 33,460 sockeye with an average weight of 6.42
lbs. for a combined total of 36,700 sockeye with an average weight
of 6.21 lbs.

Through July 25, the Northwest Afognak and Shuyak Island Sections the sockeye harvest total was 5,160 sockeye with an average weight of 4.54 lbs. Nineteen vessels participated during this time period in 1990. In addition, 10 chinook, 47 coho, 2,150 pink, and 240 chum, were also caught in 1990 (Figure 12). Through July 25, the Mainland units totaled 52,560 sockeye with an average weight of 6.25 lbs. Fifty-eight vessels participated during this time period, and an additional harvest of 130 chinook, 3,865 coho, 16,455 pink, and 19,175 chum salmon occurred (Figure 13). The combined total for these two areas was 57,720 sockeye with an average weight of 6.10 lbs. compared to the 1988 harvest during the same time period of 391,920 sockeye with an average weight of approximately 7.1 lbs.

The Southwest Afognak Section during the period July 6 through July 25 had a harvest of 22,945 sockeye which averaged 5.48 lbs., compared to 86,000 sockeye harvested in 1988 during the same time period with an average weight of approximately 7.0 lbs. Sixty-four vessels reported landings in 1990 and additionally harvested 3,660 chinook, 3,600 coho, 5,370 pink, and 6,040 chum salmon (Figure 14).

The total sockeye harvest for all management units combined under this plan was 80,665 with an average weight of 5.92 lbs. This sockeye harvest was 83 percent less than the 477,920 sockeye harvested in these same management units during the same time frame in 1988 (Figure 15). The historical fishing effort and the importance of the North Shelikof Fishery to KMA fishermen is discussed by Malloy (1988).

Escapement

The chinook salmon escapement of 25,700 into Karluk and Red River combined was excellent, exceeding the desired escapement goal by over 2,000.

Sockeye escapement goals were achieved for all major sockeye systems with the exception of the early run into Karluk which was 60,000 fish below the minimum goal of 250,000. Sockeye escapement into all systems with salmon counting weirs totaled 1.9 million fish (Table 13). The indexed peak sockeye salmon escapement for the entire KMA of 2,006,241 is slightly below the desired escapement goal of 2,140,000 and was well beyond the minimum goal of 1,447,000.

Interim coho escapement goals through September were met in all systems with weirs.

The pink salmon escapement of an estimated 5.0 million fish exceeded the pre-season goal of 3.9 million, predominately due to the unusual entry pattern of pinks into Karluk which resulted in an escapement of 3.4 million fish. Overall minimum pink escapements for the Westside bays, Afognak, Chiniak and lower Eastside streams were achieved. Excellent pink escapements, just exceeding the desired escapement goal, were achieved in the Mainland District, however, minimum escapement goals were not achieved in Alitak Bay, Ugak Bay and Kiliuda Bay streams.

Chum salmon escapements overall were fair to good with minimum desired escapement goals only realized in the Southwest Kodiak District. The indexed peak chum salmon escapement of 474,620 was somewhat lower than the minimum indexed escapement goal of 510,000 chum salmon.

Detailed escapement information from aerial surveys is reported in Appendix G.1., with the index peak salmon escapement counts by district in Appendices G.2. - G.9. Daily and cumulative escapement counts for weirs operated in 1990 are in Appendix G.10 - G.24.

Subsistence Salmon Fishery

Subsistence use of salmon is the priority use of salmon resources in the KMA and throughout Alaska. The KMA staff issues subsistence salmon permits annually in an attempt to obtain harvest data. In 1986, a program was instituted to build a computerized address list of permit users. In 1989 KMA staff began to mail out permits, regulations and a map showing closed water areas to

eligible residents (Appendix H.1.-H.2.). The mailing list was made up of all the permit users from 1986 through 1988. State regulations in effect during 1989 limited permit holders to only those Alaskans permanently domiciled within the Kodiak Island Borough. Regulations also excluded members of the United States Coast Guard (USCG) living on the USCG base or government provided housing in Kodiak. In 1990, regulations changed again allowing anyone who qualifies as a resident of Alaska eligible for a subsistence salmon permit for the KMA. Permits were mailed out, and predictably many were returned to ADF&G as undeliverable. Over 600 permits were sent back to the office, with 2,300 permits actually issued.

Subsistence fishermen are requested to return their permits to ADF&G after the salmon season, with a listing of areas fished by date and salmon harvest by species. Approximately 1,200 permits were returned and a total of 28,977 salmon were harvested, (Table 14) . Sockeye salmon accounted for 62% of the harvest, followed by coho salmon at 30%. Although with few restrictions, the entire KMA is open to subsistence salmon fishing, the most utilized subsistence fishery areas include the North end of Kodiak Island and the Southeast side of Afognak Island. The 1990 subsistence salmon harvest represents the highest recorded catch to date and exceeds the current ten-year average by just over 5,000 fish or 21% (Table 15).

1991 Projections

Harvest expectations for the 1991 Kodiak commercial salmon fishery are excellent, in numbers of fish are as follows: chinook 15,000, sockeye 4.30 million, coho 230,000, pink 20.53 million, which includes Kitoi Bay Hatchery's potential contribution of 2.83 million pink salmon to the commercial harvest, and chum 805,000. Pre-emergent fry sampling this spring indicated fair to excellent overwinter survival from the brood year escapement in 1989, in which the vast majority of pink salmon returning to KMA streams were utilized as "escapement" due to extensive commercial fishery closures resulting from the 1989 Exxon Valdez oil spill.

LITERATURE CITED

- Barrett, B.M. 1989. North Shelikof Strait 1988 sockeye catch distribution, timing, and stock composition. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K88-6, Kodiak.
- Malloy, L. 1988. Interception of Cook Inlet-bound sockeye in the 1988 Kodiak commercial salmon fishery. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K88-7, Kodiak.
- Malloy, L., Prokopowich, D., and Brennan, K., 1990. 1990 Harvest Strategy - Kodiak Area Commercial Salmon Fishery. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K90-24, Kodiak.

Table 1. Estimated number of salmon production systems per district,^a with species distribution^b, Kodiak Management Area, 1990.

Management District	Number of Streams	Number of Streams with Each Species				
		Chinook	Sockeye	Coho	Pink	Chum
Afognak	102	0	13	48	102	5
N.W. Kodiak	63	0	4	22	63	23
S.W. Kodiak	11	2	2	10	11	6
Alitak	30	1	5	15	30	14
Eastside Kodiak	116	1	8	32	116	47
N.E. Kodiak	26	0	1	20	26	9
Mainland	92	0	6	27	92	46
TOTAL	440	4	39	174	440	150

^a The total number of streams identified in this table are depicted on the 1990 Kodiak Area Salmon District Map.

^b These estimates are based on current knowledge and, in fact, are expected to change as more system specific data is collected.

Table 2. Summary of salmon limited entry permit activity, Kodiak Management Area, 1975-1990.

Year	<u>Purse Seine</u>		<u>Beach Seine</u>		<u>Set Gillnet</u>		<u>Total</u>		% Fished
	Fishable	Fished	Fishable	Fished	Fishable	Fished	Fishable	Fished	
1975	468	280	26	8	229	116	723	404	56
1976	394	325	23	17	187	140	604	482	80
1977	378	312	32	22	186	142	596	476	80
1978	388	345	32	24	188	152	608	521	86
1979	385	340	34	28	184	154	603	522	87
1980	387	360	35	29	187	158	609	547	90
1981	387	325	35	30	187	169	609	524	86
1982	386	338	34	28	187	169	607	535	88
1983	383	342	35	27	188	174	606	543	90
1984	384	298	31	25	188	168	607	491	81
1985	384	272	35	21	188	169	607	467	77
1986	385	288	35	15	187	175	607	478	79
1987	386	298	35	18	188	173	609	489	80
1988	387	323	35	21	188	180	610	523	86
1989 ^a	388	4	35	1	189	87	612	92	15
1990	388	354	33	21	189	185	610	560	92
15 Year Average (1975-1990)	391	320	33	22	190	162	614	504	82

^a Effort levels not included in average totals due to extensive fishery closures due to the presence of oil from the Exxon Valdez spill.

Table 3. Resident vs. non-resident Kodiak salmon limited entry permit ownership and fishery participation, Kodiak Management Area, 1985-1990.

	<u>PURSE SEINE</u>		<u>BEACH SEINE</u>		<u>SET GILLNET</u>		<u>TOTAL</u>	
	Number	%	Number	%	Number	%	Number	%
1985								
RESIDENT	291	76	31	88	148	79	470	77
NON-RESIDENT	89	23	2	6	40	21	131	22
UNKNOWN	<u>4</u>	1	<u>2</u>	6	<u>0</u>	-	<u>6</u>	1
TOTAL	384		35		188		607	
1986								
RESIDENT	286	74	28	80	148	79	462	76
NON-RESIDENT	80	21	3	9	39	21	122	20
UNKNOWN	<u>19</u>	5	<u>4</u>	11	<u>0</u>	-	<u>23</u>	4
TOTAL	385		35		187		607	
1987								
RESIDENT	282	73	29	83	151	80	462	76
NON-RESIDENT	84	22	2	6	35	19	121	20
UNKNOWN	<u>20</u>	5	<u>4</u>	11	<u>2</u>	1	<u>26</u>	4
TOTAL	386		35		188		609	
1988								
RESIDENT	287	74	30	86	149	79	466	76
NON-RESIDENT	93	24	2	6	39	21	134	22
UNKNOWN	<u>7</u>	2	<u>3</u>	8	<u>0</u>	-	<u>10</u>	2
TOTAL	387		35		188		610	
1989								
RESIDENT	285	73	29	83	146	77	460	75
NON-RESIDENT	96	25	4	11	43	23	143	23
UNKNOWN	<u>7</u>	2	<u>2</u>	6	<u>0</u>	-	<u>9</u>	2
TOTAL	388		35		189		612	
1990								
RESIDENT	283	73	29	88	142	75	454	75
NON-RESIDENT	99	25	4	12	46	24	149	24
UNKNOWN	<u>6</u>	2	<u>0</u>	-	<u>1</u>	1	<u>7</u>	1
TOTAL	388		33		189		610	

Table 4. Kodiak pink salmon fry indexes for even year runs, 1982-1990.

Stream	FOR 1982 RETURN		FOR 1984 RETURN		FOR 1986 RETURN		FOR 1988 RETURN		FOR 1990 RETURN	
	1981 Fry Index	% DIGS With Fry	1983 Fry Index	% DIGS With Fry	1985 Fry Index	% DIGS With Fry	1987 Fry Index	% DIGS With Fry	1989 Fry Index	% DIGS With Fry
Portage	309.62	72	225.74	62	98.56	44	191.42	64	123.96	64
Paramanof	77.07	40	148.22	33	264.02	70	279.22	80	309.35	83
Malina	228.56	72	223.00	53	255.19	-	405.74	73	206.50	68
Afognak	62.30	64	91.68	64	74.03	56	60.69	80	85.33	56
Marka	46.96	30	161.76	57	102.76	-	86.53	33	224.79	62
Danger	30.40	15	113.79	55	176.60	50	175.66	55	439.14	83
Baumans	6.28	17	374.09	70	387.72	67	624.80	97	163.55	77
Terror	0	0	22.38	26	107.60	46	71.02	56	34.54	24
Uganik	46.16	26	75.05	25	188.03	77	56.04	38	14.53	22
Little	46.64	20	1.61	5	43.14	-	230.00	53	31.34	13
Zachar	80.81	14	4.52	12	123.63	48	33.14	12	55.52	22
Browns	32.64	40	123.96	26	574.49	92	107.33	53	52.19	33
Uyak #202	0	0	30.49	12	97.11	22	34.25	7	63.22	30
Karluk	15.06	38	62.10	59	168.16	94	15.47	48	34.43	35
Sturgeon	16.79	18	0	0	0	0	0	0	0	0
Red River	460.26	87	431.07	95	552.71	98	385.57	94	345.93	90
Dog Salmon	20.98	18	136.29	38	446.27	70	10.40	28	138.98	35
Narrows	113.75	40	93.97	60	73.17	27	177.90	53	53.08	13
Deadman	0	0	49.50	23	380.73	48	93.97	23	149.92	28
Humpy	337.80	58	422.93	77	240.90	43	689.12	88	384.61	69
7-Rivers	333.80	53	237.56	58	549.24	94	732.70	98	364.41	74
Kalugnak	160.11	58	17.32	14	121.80	46	494.64	86	826.91	94
Barling	149.56	43	27.17	33	118.23	40	167.32	35	105.18	48
Kiliuda	0	0	15.06	4	97.92	45	16.41	20	26.09	25
Saltery	26.90	33	3.34	18	90.28	52	97.27	36	11.41	18
Miam	37.66	20	19.37	26	38.74	30	60.61	37	6.55	22
Hurst	5.83	8	0	0	0	0	88.77	18	143.78	55
Sid Olds	103.83	40	60.69	22	356.48	68	301.39	48	157.74	40
American	.09	2	17.99	10	84.90	22	277.43	37	66.44	28
Buskin	460.89	98	566.87	97	641.83	95	531.99	82	402.07	87
Sheratin	49.60	28	119.76	38	421.90	86	168.61	58	192.82	38
Kukak	0	0	NS	NS	NS		NS		0	0
Missak	217.17	67	152.07	40	NS		136.65	53	307.74	60
Kinak	70.07	63	5.51	13	NS		NS		21.79	30
Geographic	0	0	0	0	NS		0	0	222.19	30
Dakavak	86.26	70	6.99	3	NS		53.08	33	108.68	40
Kashvik	69.00	50	0	0	NS		6.32	3	79.09	30
Alinchak	125.68	52	0	0	NS		29.95	7	224.17	53
Portage	119.08	43	0	0	NS		149.21	40	303.61	70
Kanatak	174.67	63	72.99	47	NS		NS		75.50	40
Oil Creek	112.17	60	0	0	NS		NS		NS	
Jute Creek	2.96	10	116.21	55	NS		NS		NS	
Big Creek	1.40	2	.40	3	NS		NS		NS	

Table 5. Board of Fisheries approved management plans, Kodiak Management Area, 1990.

MANAGEMENT PLAN	YEAR INITIATED	MANAGEMENT UNITS AFFECTED	DATES IN EFFECT
C. Igvak Mgmt. Plan	1978	Cape Igvak Section Wide Bay Section	6/5 - 7/25
Kitoy Bay Hatchery Mgmt. Plan	1981	Kitoy Bay Section Izhut Bay Section Duck Bay Section	6/9 - 10/1
Alitak District	1987	Alitak Bay District	6/9 - 10/1
Westside Kodiak Mgmt. Plan	1990	N.W. Kodiak District S.W. Kodiak District S.W. Afognak Section	6/9 - 10/1
Crescent Lake Mgmt. Plan	1990	Portion of Central Section in Vicinity of Port Lions	8/1 - 9/15
N. Shelikof Straits Sockeye Mgmt. Plan	1990	S.W. Afognak Section N.W. Afognak Section Shuyak Section Big River Section Hollo Bay Section In. and Out. Kiliuda Sect. Dakavak Section	7/6 - 7/25

As with any good plan, the test of time and a continued review process will determine it's effectiveness at accomplishing the desired biological and allocative goals. To date, only the Cape Igvak, the Kitoy Bay Hatchery, and the Alitak District Management Plan have been adequately exposed to this degree of scrutiny.

Table 6. Major system sockeye brood year escapements for the 1990 return, Kodiak Management Area.

Brood Year Age for 1990 Return		1983 (7)	1984 (6)	1985 (5)	1986 (4)	1987 (3)	1988 (2)	1989 (1)
K	May	19	173	391	7	131	751	169
A	June	188,066	231,894	247,292	335,458	299,883	252,954	327,094
R	July	33,983	61,571	77,129	23,902	64,873	50,904	29,219
L	August	94,453	11,702	175,196	244,207	152,199	148,163	160,598
U	September	119,624	114,928	495,940	282,823	249,165	126,044	591,566
K	October	-	-	-	-	774	-	-
	TOTAL	436,145	420,268	995,948	887,171	766,251	578,816	1,108,646
R	May	2,284	18,300	-	64	1,052	6,298	6
E R	June	59,549	153,530	235,482	157,159	118,380	110,032	418,367
D I	July	82,853	90,830	137,453	120,892	109,623	128,139	250,913
V	August	26,729	20,555	15,636	40,020	32,675	46,957	98,815
E	September	-	-	-	-	183	348	-
R	TOTAL	171,415	283,215	388,759	318,125	216,913	291,774	768,101
F	May	-	-	-	-	-	-	-
R	June	87,457	24,821	57,364	-	7,358	132,279	241,631
A	July	69,705	27,531	421,088	126,260	39,837	110,153	100,989
S	August	1,178	1,172	7,383	269	1,382	5,218	17,753
E	September	-	-	-	-	379	405	-
R	TOTAL	158,340	53,524	485,835	126,529	48,956	248,055	360,373
S	May	-	998	-	-	1,328	328	41
U T	June	85,936	52,710	17,690	86,581	59,373	50,592	55,161
P A	July	29,954	43,090	21,327	24,849	62,240	49,327	50,663
P T	August	143,501	183,713	355,611	344,416	65,966	189,203	156,078
E I	September	29,859	38,715	41,189	10,539	43,288	17,110	24,345
R O	October	-	-	-	-	-	-	-
N	TOTAL	289,250	319,216	435,817	466,385	232,195	306,560	286,288
A	May	2,995	11,970	6	47	3,178	209	-
O	June	20,804	69,812	30,224	38,867	14,321	24,287	62,902
G	July	15,623	11,007	17,279	8,427	6,477	6,143	19,698
N	August	627	1,453	5,903	979	1,945	8,367	5,899
A	September	-	221	460	13	553	6	326
K	TOTAL	40,049	94,463	53,872	48,333	26,474	39,012	88,825

Table 7. Projected vs. actual commercial salmon harvest by species and fishery, for the Kodiak Management Area, 1990.

	Chinook	Sockeye	Coho	Pink	Chum	Total
1990 Projected Harvest	8,000	2,540,000	190,000	11,790,000	705,000	15,233,000
1990 Actual Harvest	18,810	5,248,400	293,820	5,983,810	577,740	12,122,580

<u>FISHERY</u>	<u>1990 HARVEST PROJECTION</u>	<u>1990 HARVEST ACTUAL</u>
<u>Early Run Sockeye Salmon Fisheries (6/9-7/15)</u>		
Cape Igvak	60,000	52,000
Karluk	250,000	127,000
Ayakulik	468,000	1,274,000
Fraser	394,000	666,000
Upper Station	20,000	159,000
Minor Systems	40,000	62,000
Other	<u>70,000</u>	<u>74,000</u>
Sub-Total	1,302,000	2,414,000
<u>Late Run Sockeye Salmon Fisheries (7/16-9/15)</u>		
Cape Igvak	115,000	85,000
Karluk	550,000	1,364,000
Ayakulik	312,000	586,000
Fraser	0	60,000
Upper Station	211,000	581,000
Minor Systems	20,000	62,000
Other	<u>30,000</u>	<u>96,000</u>
Sub-Total	1,238,000	2,834,000
TOTAL SOCKEYE	2,540,000	5,248,000
<u>Coho Salmon Fisheries (8/1-10/1)</u>		
Afognak	27,000	63,000
Westside	95,000	139,000
Alitak	25,000	18,000
Eastside/Northend Kodiak	22,000	26,000
Mainland	<u>32,000</u>	<u>48,000</u>
Sub-Total	190,000	294,000
<u>Pink Salmon Fisheries (7/6-9/5)</u>		
Afognak (Hatchery)	2,890,000	539,000
Afognak (Natural)	1,850,000	1,011,000
Westside Kodiak	3,350,000	3,000,000
Alitak	400,000	145,000
Eastside/Northend Kodiak	1,600,000	413,000
Mainland	<u>1,700,000</u>	<u>876,000</u>
Sub-Total	11,790,000	5,984,000
<u>Chum Salmon Fisheries (7/6-9/5)</u>		
Afognak (Hatchery)	0	4,000
Afognak (Natural)	35,000	30,000
Westside Kodiak	325,000	173,000
Alitak	55,000	50,000
Eastside/Northend Kodiak	60,000	120,000
Mainland	<u>230,000</u>	<u>201,000</u>
Sub-Total	1,705,000	578,000
GRAND TOTAL (6/9-10/15)	15,225,000 ^a	12,104,000 ^b

^a Does not include the estimated harvest of 8,000 chinook salmon.

^b Does not include the actual harvest of 19,000 chinook salmon.

Table 8. Estimated salmon harvest and value by gear type in the Kodiak Management Area, 1970-1990.

Year	Total Catch ^b	Total Value ^a	Average Value by Gear		
			Purse Seine	Beach Seine	Set Gillnet
1970	13,949,000	21,658,000	41,880	10,470	21,083
1971	6,378,000	4,973,000	13,397	2,919	3,015
1972	3,883,000	3,909,000	9,233	647	1,451
1973	1,001,000	2,094,000	5,075	251	852
1974	3,329,000	4,808,000	15,993	4,406	4,828
1975	3,187,000	3,831,000	13,300	5,600	3,849
1976	12,485,000	16,976,000	43,017	11,035	14,481
1977	7,977,000	21,000,000	48,382	12,434	19,351
1978	16,942,000	32,000,000	72,158	15,731	25,495
1979	12,420,000	25,000,000	48,906	18,839	23,000
1980	19,157,000	31,000,000	69,117	7,710	21,578
1981	13,094,000	33,000,000	75,257	17,312	26,231
1982	10,892,000	16,230,000	31,868	10,549	30,554
1983	7,082,000	14,530,000	32,832	5,886	19,338
1984	13,678,000	26,202,000	72,018	12,577	26,777
1985	9,898,000	20,782,000	45,303	6,451	31,296
1986	16,305,000	39,106,000	92,933	9,517	69,644
1987	7,747,000	28,113,000	71,170	12,780	38,000
1988	19,010,000	103,749,000	252,231	47,016	118,285
1989c	26,209,000	54,114,000	130,000	30,000	100,000
1990	12,122,000	52,987,000	112,251	10,291	70,457
20 Yr. Average 1970-1989					
	11,231,150	25,153,750	59,204	12,107	29,955

^a Value is an "exvessel value", in U.S. dollars (\$), based upon Commercial Fisheries Entry Commission price information; it includes additional value associated with dock deliveries and post season settlements.

^b Includes total commercial harvest; excludes test fishery and Kitoi cost recovery fishery harvests. These figures are in numbers of fish.

^c Estimated projected harvest for 1989 includes actual and projected harvest on natural Kodiak stocks, and actual harvest of hatchery stocks from a estimated total natural harvest, and uses the inseason bid price for actual hatchery harvest. The average exvessel value by gear type is estimated by using the 1988 gear levels and proportional harvest by gear type, as if a normal fishery had occurred on a normal distribution of fish.

Table 9. Exvessel salmon prices per pound and gear type Kodiak Management Area, 1986-1990^a.

	Chinook	Sockeye	Coho	Pink	Chum
1986					
Purse Seine	1.099	1.415	0.679	0.203	0.325
Beach Seine	1.099	1.415	0.679	0.203	0.325
Set Gillnet	1.137	1.432	0.577	0.186	0.321
Hatchery	-	-	0.441	-	-
Other/Unknown	-	-	-	-	-
1987					
Purse Seine	1.172	1.743	0.839	0.437	0.435
Beach Seine	1.172	1.743	0.835	0.437	0.435
Set Gillnet	1.266	1.734	0.825	0.423	0.391
Hatchery	-	1.646	0.441	0.284	0.178
Other/Unknown	-	1.734	-	-	0.391
1988					
Purse Seine	1.447	2.703	1.281	0.812	1.128
Beach Seine	1.447	2.703	1.281	0.812	1.128
Set Gillnet	1.496	2.714	1.262	0.811	1.169
Hatchery	-	2.703	1.281	0.760	-
Other/Unknown	-	2.706	-	-	1.132
1989					
Purse Seine	1.167	1.642	0.870	0.553	0.373
Beach Seine	1.167	1.600	0.600	0.553	0.373
Set Gillnet	1.167	1.794	0.516	0.369	0.386
Hatchery	-	-	-	0.554	-
Other/Unknown	-	1.794	-	0.548	0.385
1990					
Purse Seine	1.030	1.534	0.768	0.329	0.503
Beach Seine	1.030	1.534	0.768	0.329	0.503
Set Gillnet	1.047	1.605	0.768	0.329	0.503
Hatchery	-	-	-	-	-
Other/Unknown	-	1.605	-	-	0.503
Average	1.196	1.881	.817	.470	.544

^a DATA SOURCE: Commercial Fisheries Entry Commission. This data represents the final price per pound data, in U.S. dollars (\$), for each of the years shown. This price includes additional payments made for dock deliveries and post season settlements.

Table 10. Historical salmon catch by species in the Kodiak Management Area, 1882-1990.

Year	Salmon Harvest (in thousands) ^a					Total
	Chinook	Sockeye	Coho	Pink	Chum	
1882		58.8				58.8
1883		188.7				188.7
1884		282.2				282.2
1885		468.6				468.6
1886		646.1				646.1
1887		1,004.5				1,004.5
1888		2,781.1				2,781.1
1889		3,754.7				3,754.7
1890		3,592.7				3,592.7
1891		3,846.4				3,846.4
1892		3,126.5				3,126.5
1893		3,244.6				3,244.6
1894		3,830.3				3,830.3
1895		2,247.0	8.3			2,255.3
1896		3,328.8				3,328.8
1897		2,785.5	1.5			2,787.0
1898		2,033.1	19.2			2,052.3
1899	1.1	1,934.8	32.5			1,968.4
1900	4.8	3,450.5	32.2			3,487.6
1901	3.8	4,826.2		2.0		4,832.0
1902	2.9	3,868.1	35.0			3,906.0
1903	1.2	1,826.2	119.5	10.0		1,956.9
1904	3.2	2,875.1	103.1	5.2		2,986.6
1905	2.5	2,142.4	86.9			2,231.8
1906	3.6	3,980.5	23.7			4,007.8
1907	4.0	4,232.5	38.1			4,274.5
1908	3.0	2,487.8	73.8	286.4		2,851.0
1909	3.9	1,915.2	51.5	153.6		2,124.2
1910	1.6	1,954.7	44.3	215.4		2,216.0
1911	0.7	2,685.9	21.9	229.6	6.5	2,944.6
1912	0.7	2,246.5	17.5	547.2	24.6	2,836.4
1913	1.1	1,663.2	27.6	590.0	3.8	2,285.7
1914	1.3	1,255.4	32.1	1,726.4	13.1	3,028.3
1915	0.9	1,664.4	51.8	252.1	20.3	1,989.6
1916	1.0	3,373.1	49.7	3,181.9	29.0	6,634.6
1917	1.5	3,645.9	30.5	225.3	16.0	3,919.2
1918	2.0	1,894.5	78.2	2,467.3	81.7	4,523.7
1919	1.8	1,619.1	104.2	282.7	60.1	2,068.0
1920	1.6	1,957.6	89.0	1,977.4	55.2	4,080.8
1921	0.7	2,857.9	45.8	67.7	24.8	2,996.8
1922	0.7	1,097.4	119.7	2,766.3	224.0	4,208.0
1923	1.9	1,090.1	77.6	928.5	38.7	2,136.7
1924	1.0	1,407.5	120.7	5,435.1	117.9	7,082.2
1925	1.9	1,693.1	93.0	2,673.7	212.5	4,674.1
1926	0.6	3,015.4	174.5	4,606.7	324.7	8,121.8
1927	4.4	1,155.2	151.5	5,297.3	418.0	7,026.4
1928	2.5	1,592.0	290.6	1,535.3	726.5	4,147.0
1929	3.2	712.1	144.2	6,108.4	1,057.7	8,025.6

-Continued-

Table 10. (page 2 of 3)

Year	Salmon Harvest (in thousands) ^a					Total
	Chinook	Sockeye	Coho	Pink	Chum	
1930	5.0	466.4	228.8	1,651.4	419.0	2,770.6
1931	1.5	1,183.1	170.1	6,839.9	183.7	8,378.3
1932	1.9	1,058.4	52.2	4,719.9	237.0	6,069.5
1933	1.1	1,428.4	91.4	6,573.7	536.9	8,631.5
1934	1.3	1,829.0	89.6	7,641.9	661.3	10,223.1
1935	1.4	1,613.5	76.8	10,780.6	381.8	12,854.1
1936	2.5	2,657.2	183.9	5,647.7	328.2	8,819.6
1937	1.3	1,881.3	164.9	16,787.2	346.2	19,180.9
1938	1.2	1,965.9	155.0	8,398.0	640.1	11,160.2
1939	2.3	1,786.4	112.2	11,741.2	641.7	14,283.8
1940	1.2	1,318.2	148.0	9,997.9	673.3	12,138.6
1941	2.6	1,730.2	199.5	7,601.5	444.5	9,978.3
1942	1.3	1,281.5	106.9	6,092.5	564.9	8,047.2
1943	1.1	1,990.6	59.7	12,479.6	454.2	14,985.2
1944	0.7	1,817.9	51.7	4,955.4	506.7	7,332.3
1945	2.0	2,041.1	60.1	9,044.5	559.3	11,707.1
1946	0.1	838.9	56.4	9,545.9	298.5	10,739.8
1947	0.1	993.4	76.2	8,856.7	294.5	10,220.9
1948	1.4	1,260.5	32.4	5,968.5	330.8	7,593.5
1949	0.9	892.3	53.7	4,927.8	699.5	6,574.3
1950	2.1	920.9	40.7	5,304.7	685.1	6,953.5
1951	2.4	467.9	48.8	2,100.4	483.1	3,102.5
1952	1.1	603.7	51.6	4,576.7	1,243.2	6,476.3
1953	3.0	317.2	41.7	5,174.6	547.6	6,084.0
1954	0.9	325.2	66.4	8,439.2	1,250.8	10,082.6
1955	2.4	164.5	34.6	10,794.2	482.4	11,478.1
1956	1.1	271.2	52.8	3,318.8	705.0	4,349.1
1957	1.0	234.3	35.0	4,716.5	1,208.5	6,195.2
1958	1.9	288.0	20.6	4,038.9	930.7	5,280.1
1959	1.8	330.1	14.5	1,967.1	733.8	3,047.3
1960	1.2	362.5	54.3	6,737.8	1,300.4	8,456.3
1961	0.9	408.0	28.6	3,926.0	518.9	4,882.4
1962	1.1	784.7	54.6	14,113.9	794.7	15,748.9
1963	0.3	407.0	57.0	5,480.2	305.1	6,249.6
1964	1.3	498.5	35.5	12,044.3	1,134.2	13,713.8
1965	0.8	346.2	26.7	2,886.8	431.3	3,691.9
1966	0.6	631.6	67.7	10,755.6	762.8	12,218.3
1967	1.8	308.8	10.4	187.8	226.7	735.4
1968	1.9	760.4	56.6	8,768.1	750.4	10,337.5
1969	2.5	591.5	48.8	12,500.8	534.9	13,678.5
1970	1.1	917.0	66.4	12,036.6	919.1	13,940.3
1971	0.9	478.5	22.8	4,333.0	1,541.4	6,376.7
1972	1.3	222.8	16.6	2,485.8	1,163.8	3,890.3
1973	0.8	167.3	3.6	518.7	317.9	1,008.3
1974	0.5	418.8	13.6	2,646.1	249.3	3,328.3
1975	0.1	136.4	23.7	2,942.8	84.4	3,187.4
1976	0.8	641.5	23.7	11,078.0	740.5	12,484.5
1977	0.6	623.5	27.9	6,252.4	1,072.3	7,976.7

-Continued-

Table 10. (page 3 of 3)

Year	Salmon Harvest (in thousands) ^a					Total
	Chinook	Sockeye	Coho	Pink	Chum	
1978	3.2	1,071.8	48.8	15,004.1	814.3	16,942.2
1979	1.9	631.7	140.6	11,287.6	358.4	12,420.3
1980	0.5	651.4	139.2	17,290.6	1,075.6	19,157.2
1981	1.4	1,289.0	121.5	10,336.8	1,345.3	13,094.1
1982	1.2	1,204.8	343.5	8,076.2	1,266.2	10,892.0
1983	3.8	1,232.0	157.6	4,603.4	1,085.2	7,082.0
1984	4.7	1,950.4	229.5	10,844.3	649.1	13,678.0
1985	5.0	1,843.2	284.2	7,334.8	430.8	9,897.9
1986	4.4	3,188.3	168.8	11,807.7	1,134.6	16,303.7
1987	4.6	1,792.8	192.5	5,076.0	682.0	7,748.0
1988	22.4	2,698.6	303.3	14,409.3	1,426.4	18,860.0
1989	4.9	2,628.6	141.4	22,648.5	835.7	26,259.1
1990	18.8	5,247.6	293.8	5,983.8	577.7	12,121.7
Averages All Years						
	2.2	1,618.6	86.3	5,811.8	564.8	6682.0
Averages 1948-1990						
	5.0	894.8	84.6	7,216.1	785.6	8,983.8
Even Year (EY) 1948-1990						
				8,896.8		11,036.8
Odd Year (OY) 1949-1989 ^b						
				5,367.4		6,725.5
Averages 1980-1990 ^b						
	6.7	2,109.9	223.4	9,576.3	967.3	12,883.5
Even Year (EY) 1980-1990						
				8,894.9		15,168.9
Odd Year (OY) 1979-1989 ^b						
				7,727.7		10,048.5

^a For the period 1882-1947, the harvest data was derived from "casepack" information supplied by commercial buyers and processors. For the period 1948-present, the harvest data was derived from "fish ticket" information summarized by ADF&G.

^b Averages do not include harvest data for 1989. The 1989 harvest data shown is unique from all other years. The total harvest by species in this table is the summation of the actual harvest which did occur and the projected harvest which would have occurred if there had not been restrictions on the 1989 fishery. In 1989 there was only limited commercial salmon fishing allowed because of the presence of oil contaminated waters in the Kodiak Management Area due to the M/V Exxon Valdez oil spill.

Table 11. Commercial salmon buyers and processors, Kodiak Management Area, 1990.

Buyers/Processors ^a	Shorebased Processors			Floating Processors			Product	
	Kodiak City	Kodiak Borough	Other Areas	Kodiak City	Kodiak Borough	Other Areas	Canned	Frozen
Alaska Fresh Seafoods	X							X
All Alaskan Seafoods	X							X
Alaska Pacific Seafoods	X						X	X
Chugach Fisheries - Uganik Bay		X					X	
Ward's Cove Packing - Alitak		X					X	X
Ward's Cove Packing - Port Bailey		X					X	X
Cook Inlet Processors	X							X
East Point Seafoods	X							X
International Seafoods	X							X
Inlet Salmon			X					X
Kodiak King Crab, Inc.	X						X	X
Kodiak Salmon Packers -Larsen Bay		X					X	X
Lafayette Fisheries					X		X	
Pan Pacific Seafoods/Pacific Producer					X			X
Western Alaska Seafoods	X							X
Western Sea					X			X
TOTALS	8	4	1	0	3	0	7	14

^a In 1990, 15 individual companies participated in the Kodiak Management Area commercial salmon fisheries. One company operated more than one shorebased processing plant, and three companies operated floating processors. The total number of salmon processing locations in the KMA in 1990 was 16.

Table 12. Commercial salmon harvest and value, by gear type, Kodiak Management Area, 1990. a

Purse Seine	Chinook	Sockeye	Coho	Pink	Chum	Total	Percent
Total No.s	17,550	3,869,588	238,723	5,350,391	471,641	9,947,893	82.07
Avg. Wt.	12.19	5.16	8.14	3.14	7.78		
Total Lbs.	213,904	19,985,601	1,944,154	16,774,153	3,671,645	42,589,457	79.75
Avg. \$/Lb.	1.03	1.53	0.77	0.33	0.50		
Ex-Vessel \$	220,321.12	30,657,911.93	1,493,110.27	5,518,696.34	1,846,837.44	39,736,877.10	74.99
# of Permits =	354						
Average Value	622.38	86,604.27	4,217.83	15,589.54	5,217.05	112,251.07	
Percent	0.55	77.15	3.76	13.89	4.65	100	
Beach Seine	Chinook	Sockeye	Coho	Pink	Chum	Total	Percent
Total No.s	38	8,934	1,706	84,188	11,205	106,071	0.88
Avg. Wt.	16.95	5.05	9.06	3.23	7.98		
Total Lbs.	644	45,157	15,456	271,589	89,377	422,223	0.79
Avg. \$/Lb.	1.03	1.53	0.77	0.33	0.50		
Ex-Vessel \$	663.32	69,270.84	11,870.21	89,352.78	44,956.63	216,113.78	0.41
# of Permits =	21						
Average Value	31.59	3,298.61	565.25	4,254.89	2,140.79	10,291.13	
Percent	0.31	32.05	5.49	41.35	20.80	100	
Set Gillnet	Chinook	Sockeye	Coho	Pink	Chum	Total	Percent
Total No.s	1,218	1,369,044	53,390	549,233	94,895	2,067,780	17.06
Avg. Wt.	12.12	5.31	8.57	3.58	7.17		
Total Lbs.	14,768	7,276,288	457,430	1,966,221	680,652	10,395,359	19.46
Avg. \$/Lb.	1.05	1.61	0.77	0.33	0.50		
Ex-Vessel \$	15,462.10	11,678,442.24	351,306.24	646,886.71	342,367.96	13,034,465.24	24.60
# of Permits =	185						
Average Value	83.58	63,126.71	1,898.95	3,496.68	1,850.64	70,456.57	
Percent	0.12	89.60	2.70	4.96	2.63	100	
Total All Gear	Chinook	Sockeye	Coho	Pink	Chum	Total	Percent
Total No.s	18,806	5,247,566	293,819	5,983,812	577,741	12,121,744	100
Avg. Wt.	12.19	5.20	8.23	3.18	7.69		
Total Lbs.	229,316	27,307,046	2,417,040	19,011,963	4,441,674	53,407,039	100
Avg. \$/Lb.	1.03	1.55	0.77	0.33	0.50		
Ex-Vessel \$	236,446.54	42,405,625.01	1,856,286.72	6,254,935.83	2,234,162.02	52,987,456.12	100
% of Total Value	0.45	80.03	3.50	11.80	4.22		100
Test Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total	
Total No.s	0	838	0	0	2	840	
Avg. Wt.	0.00	4.94	0.00	0.00	9.00		
Total Lbs.	0	4,142	0	0	18	4,160	
Avg. \$/Lb.	0.00	1.61	0.35	0.00	0.50		
Ex-Vessel \$	0.00	6,647.91	0.00	0.00	9.05	6,656.96	

a Numbers and pounds of fish are derived from fish ticket summaries. There were 19,972 fish tickets generated in 1990; each fish ticket represents a "landing". Each gear type had the following number of landings: Purse Seine: 12,409, Beach Seine: 12,409, Beach Seine: 338, and Set Gillnet: 7,225. Average \$/lb. figures are based on CFEC end of season prices and should reflect additional payments which were made for dock deliveries or post season settlements.

Table 13. Escapement summary for systems with fish weirs in the Kodiak Management Area, 1990.

Weir Locations	Dates		Salmon Species Enumerated					Total
	Installed	Removed	Sockeye	Chinook	Pink	Coho	Chum	
1. Karluk	5/29	9/08	738,088	14,442	3,423,969	14,010	400	4,190,909
2. Ayakulik	5/28	9/07	371,282	11,251	708,372	22,539	117	1,113,561
3. Dog Salmon	6/02	9/04	254,540	270	4,718	6,484	6,520	272,532
4. Frazer Lake ^a	6/24	8/15	226,960 ^a	183 ^a	0 ^a	0 ^a	5 ^a	227,148 ^a
5. Horse Marine	6/21	9/13	2,111	0	387	234	179	2,911
6. Upper Station	6/01	9/12	254,446	28	948	7,467	2	262,891
7. Akalura	5/27	9/21	47,181	1	0	4,232	0	51,414
8. Uganik	6/25	10/14	65,551	6	77,015	5,261	2,560	150,393
9. Saltery ^b	6/08	9/16	29,767	4	313	2,847	9	32,940
10. Buskin	5/25 8/16	7/31 9/26	10,528	0	52,707	6,222	18	69,475
11. Litnik	5/27	9/17	90,666	0	27,808	13,380	0	131,854
12. Paul's Bay	6/04	9/07	14,510	0	775	3,668	0	18,953
13. Portage	7/18	9/07	3,670	0	11,547	4,277	3	19,497
14. Big Bay Cr. (Shuyak)	8/13	9/30	1	0	849	1,535	0	2,385
15. Bear Creek (Shuyak)	8/12	9/17	0	0	682	926	0	1,608
TOTALS			1,882,341	26,002	4,310,090	93,082	9,808	6,321,323

^a Numbers not used in species totals as Frazer Lake salmon are initially counted through Dog Salmon weir.

^b Saltery counts are combined from a lower and upper weir.

Table 14. Subsistence harvest by species and area, Kodiak Management Area, 1990.

Area	Permits	Number of Fish					Total
		Chinook	Sockeye	Coho	Pink	Chum	
Unknown							
Unknown	272	0	0	0	0	0	0
Kizhuyak Section							
Ouzinkie Narrows	15	0	188	359	26	34	607
Monk's Lagoon	9	0	25	93	7	0	125
Spruce Island	15	1	373	127	54	18	573
Camel Rock	2	0	0	20	20	0	40
Shakmanof	1	0	10	0	0	0	10
Anton Larsen Bay	2	0	5	5	4	0	14
Sheratine Bay	9	0	65	17	2	32	116
Kizhuyak	15	2	328	386	109	2	827
Barabara Cove	26	2	552	238	0	0	792
Settlers Cove	28	0	106	1,158	24	5	1,293
Chiniak Section							
Monashka Bay	16	0	36	173	22	22	253
Buskin River	295	8	3,509	1,774	325	91	5,707
Woman's Bay	8	0	67	36	9	9	121
Cliff Point	1	0	0	0	10	0	10
Kalsin Bay	18	1	4	357	61	48	471
Roslyn Beach	12	0	11	249	6	16	282
Chiniak	6	0	112	26	36	3	177
Mayflower	1	0	0	0	4	0	4
Middle Bay	2	0	0	14	0	0	14
Ugak Bay Section							
Saltery Cove	9	14	328	7	3	0	352
Pasagshak	35	3	598	60	11	15	687
Ugak Bay	1	0	15	0	0	0	15
Portage Bay	1	0	35	0	0	0	35
Sitkalidak Section							
Midway Creek (Big Creek)	20	0	0	1,142	95	0	1,237
Old Harbor	5	2	7	153	73	80	315
Barling Bay	10	0	0	302	239	138	679
Sitkalidak Island	2	3	2	0	132	12	149
Kiliuda Bay	2	4	11	26	50	10	101
Alitak Bay Section							
Alitak Bay Section	1	0	43	0	7	0	50
Olga Bay	20	1	605	147	8	22	783
Moser Bay	29	0	947	89	24	4	1,064
Deadman's Bay	3	2	69	15	0	0	86
Alitak Unknown	4	0	45	70	0	0	115
Red River Section							
Red River (Bumble Bay)	1	0	225	0	0	0	225
Karluk Section							
Karluk	26	40	1,536	214	13	5	1,808
Uyak Bay Section							
Larsen Bay	8	20	539	96	16	8	679
Uyak Bay	8	0	347	41	69	24	481
Spiridon Bay	3	19	28	7	3	2	59
Zachar Bay	1	0	0	0	0	10	10
Brown's Lagoon	1	0	0	3	0	0	3

-Continued-

Table 14. (page 2 of 2)

Area	Permits	Number of Fish					Total
		Chinook	Sockeye	Coho	Pink	Chum	
Uganik Bay Section							
Kupreanof	11	0	331	16	51	0	398
Onion Bay	5	0	31	2	12	0	45
Viekoda Bay	9	1	331	18	11	0	361
Uganik Bay	32	4	1,293	28	35	26	1,386
Village Islands	3	0	59	0	3	1	63
Afognak Section							
Afognak Bay	167	2	4,469	608	21	3	5,103
Whale Island	1	0	21	0	0	0	21
Raspberry Straits	2	1	2	1	4	0	8
Selief	3	0	40	48	0	0	88
Malina Bay	7	0	154	10	5	0	169
Perenosa Bay	1	0	10	0	0	0	10
Pauls Bay	1	0	61	46	0	0	107
Little Afognak	6	1	148	20	0	0	169
Duck Bay	4	0	45	29	0	0	74
Danger Bay	9	0	100	215	0	0	315
Marka Bay	6	0	18	170	1	15	204
Kazakof Bay	1	0	0	3	0	0	3
Mainland Section							
Mainland Section	1	0	25	0	0	0	25
Dakavak Bay	2	0	50	9	0	0	59
No Fishing	152	0	0	0	0	0	0
Grand Totals	1,167	131	17,959	8,627	1,605	655	28,977

Table 15. Subsistence salmon fishery harvest summary by species by year for the Kodiak Management Area, 1962-1990.

Year	Permits Issued	Permits Returned	Percent Returned	Chinook	Sockeye	Coho	Pink	Chum	Total
1962	74	13	18	0	0	433	397	20	850
1963	74	15	20	0	297	576	836	195	1,904
1964	43	9	21	6	332	184	88	71	681
1965	67	7	10	2	19	318	244	12	595
1966	48	13	27	0	295	331	334	393	1,353
1967	84	29	35	2	1,306	571	894	344	3,117
1968	132	28	21	0	658	433	529	45	1,665
1969	242	30	12	1	481	338	620	30	1,470
1970	213	49	23	1	959	939	797	265	2,961
1971	267	131	49	5	3,442	1,720	1,276	472	6,915
1972	329	176	54	11	3,633	1,531	2,516	2,729	10,420
1973	400	149	37	7	4,453	2,289	1,393	1,166	9,308
1974	367	90	25	1	1,909	846	1,094	128	3,978
1975	508	90	18	1	1,141	922	947	221	3,232
1976	536	243	45	4	4,338	962	2,275	370	7,949
1977	739	451	61	54	8,119	2,508	2,849	317	13,847
1978	860	539	63	50	7,239	3,699	2,747	572	14,307
1979	1,085	697	64	111	10,376	3,840	3,300	333	17,960
1980	1,239	756	61	67	13,746	4,407	2,755	566	21,541
1981	1,166	733	63	44	12,756	3,729	2,278	470	19,277
1982	1,276	993	78	110	16,615	7,192	3,558	667	28,142
1983	1,307	1,082	83	111	15,526	6,283	2,536	800	25,256
1984	1,240	1,061	86	265	17,620	5,808	1,877	720	26,290
1985	1,476	1,196	81	172	16,231	8,873	2,756	855	28,887
1986	1,244	1,049	84	91	14,451	7,087	2,371	605	24,605
1987	1,124	904	80	101	13,277	6,737	2,409	1,316	23,840
1988	1,098	706	64	108	10,142	4,074	1,274	366	15,964
1989	2,800 ^a	715	N/A	41	11,998	3,707	1,492	367	17,605
1990	2,900 ^a	1,181	N/A	131	17,972	8,646	1,605	655	29,009
TOTAL 1962-1990				1,497	209,331	88,983	48,047	15,070	362,928
AVERAGE 1962-1990				52	7,218	3,068	1,657	520	12,515
10 YEAR AVERAGE 1981 - 1990				117	14,659	6,214	2,216	682	23,920

^a Permits were mailed to all eligible applicants listed totaling approximately 2,800. In 1990 approximately 1/5 of the 2,900 permits issued were "returned to sender" as "undeliverable". These names were removed from the permittee list.

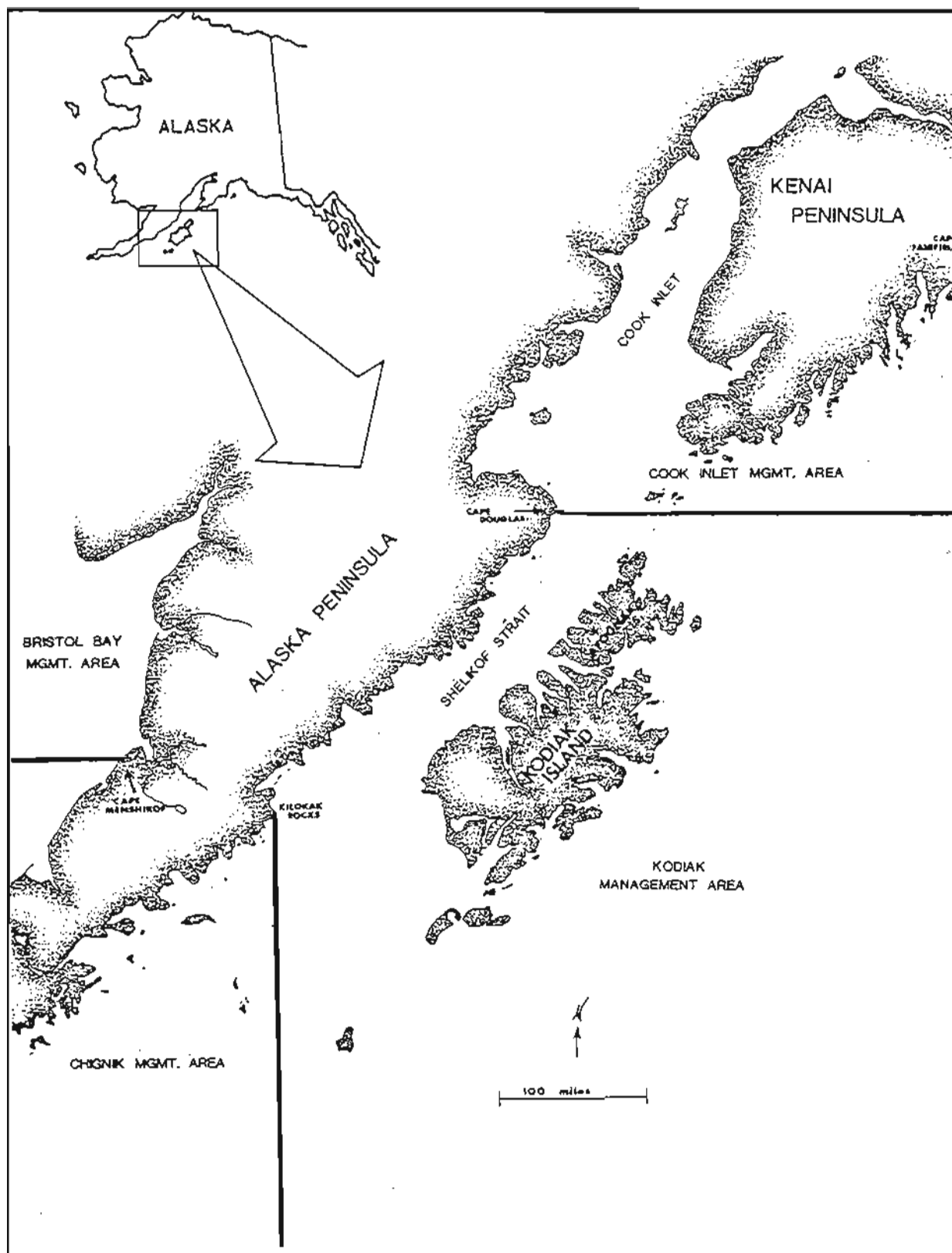


Figure 1. Location of the Kodiak Management Area, 1990.

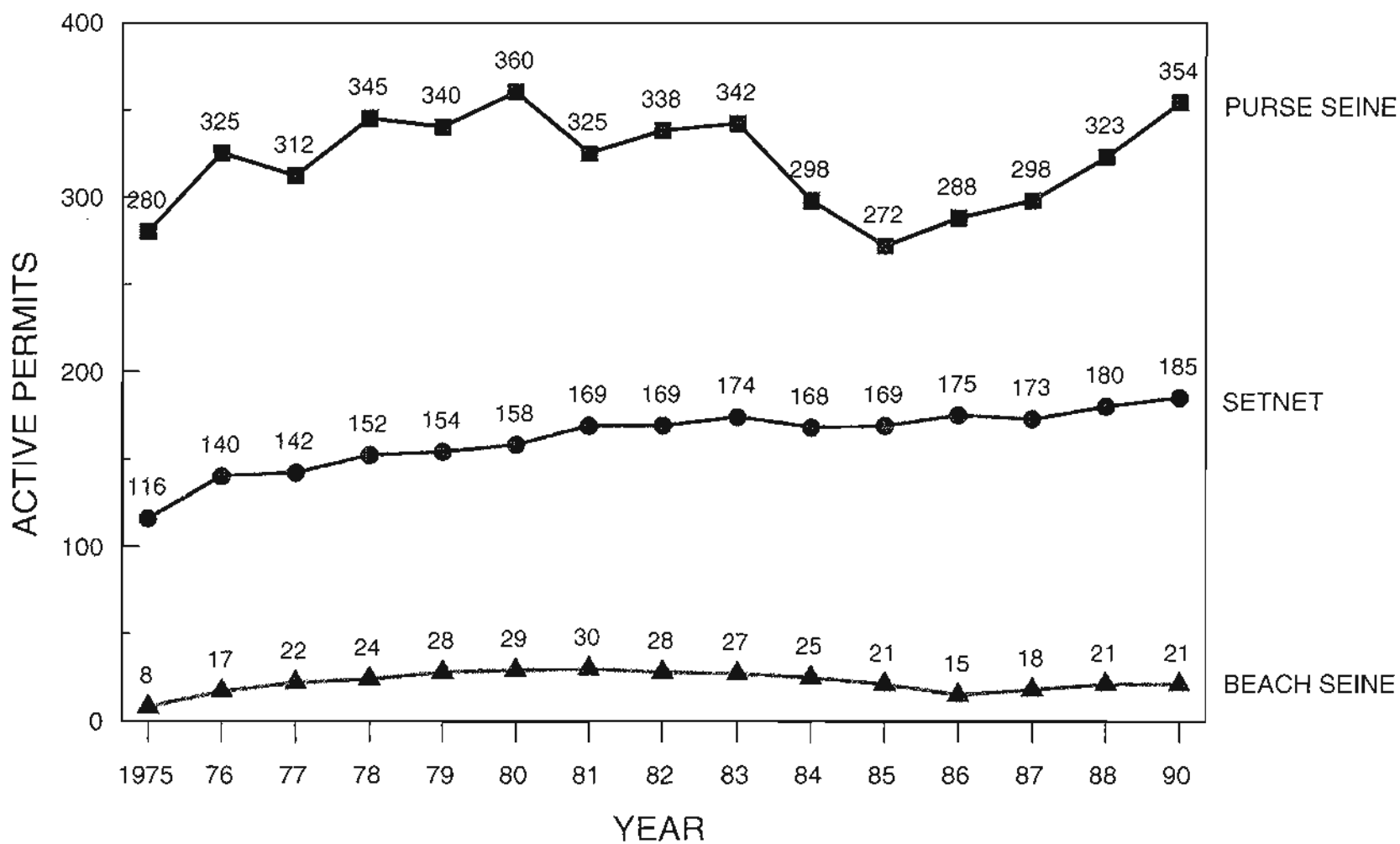


Figure 3. Number of active commercial salmon fishing permits in the Kodiak Management Area, 1975-1990.

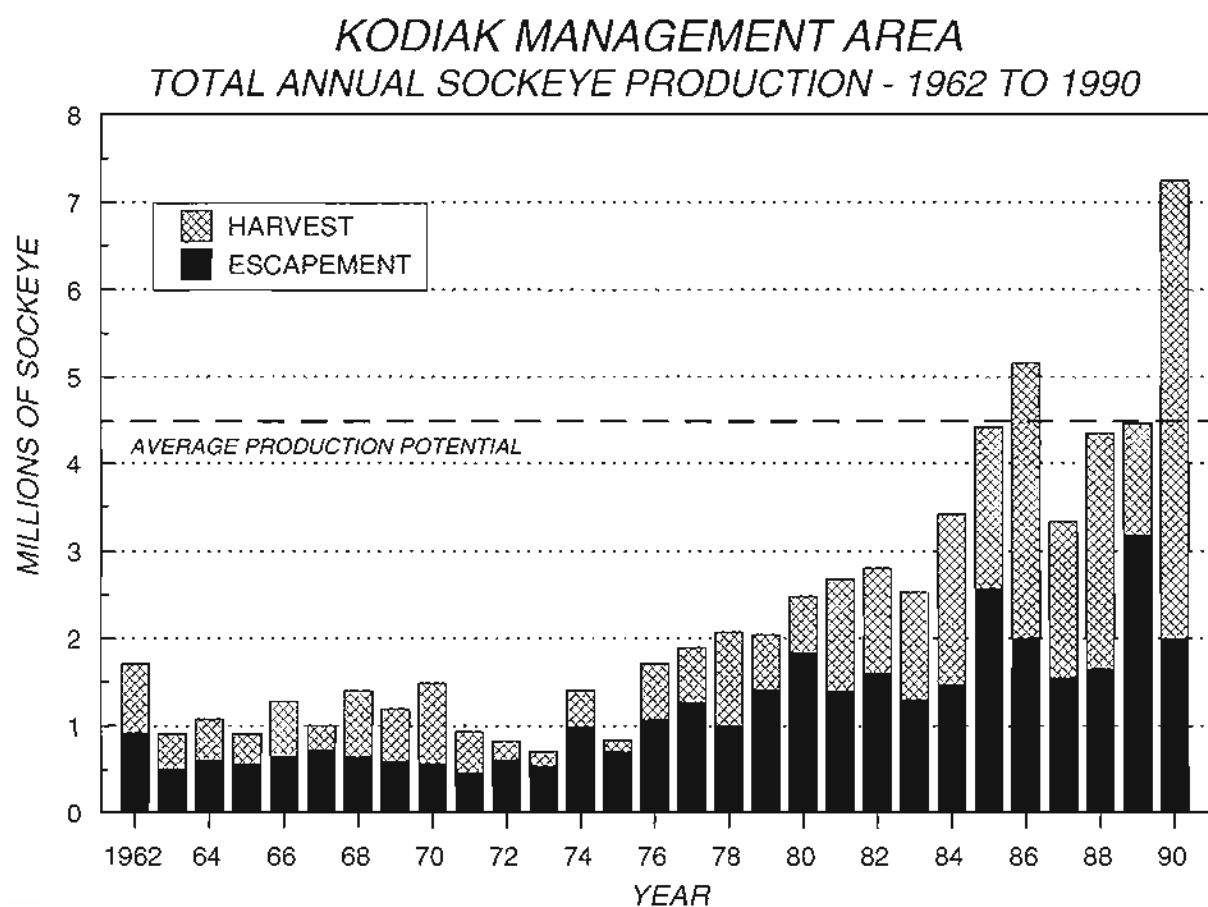


Figure 4. Total annual sockeye production, Kodiak Management Area, 1962-1990.

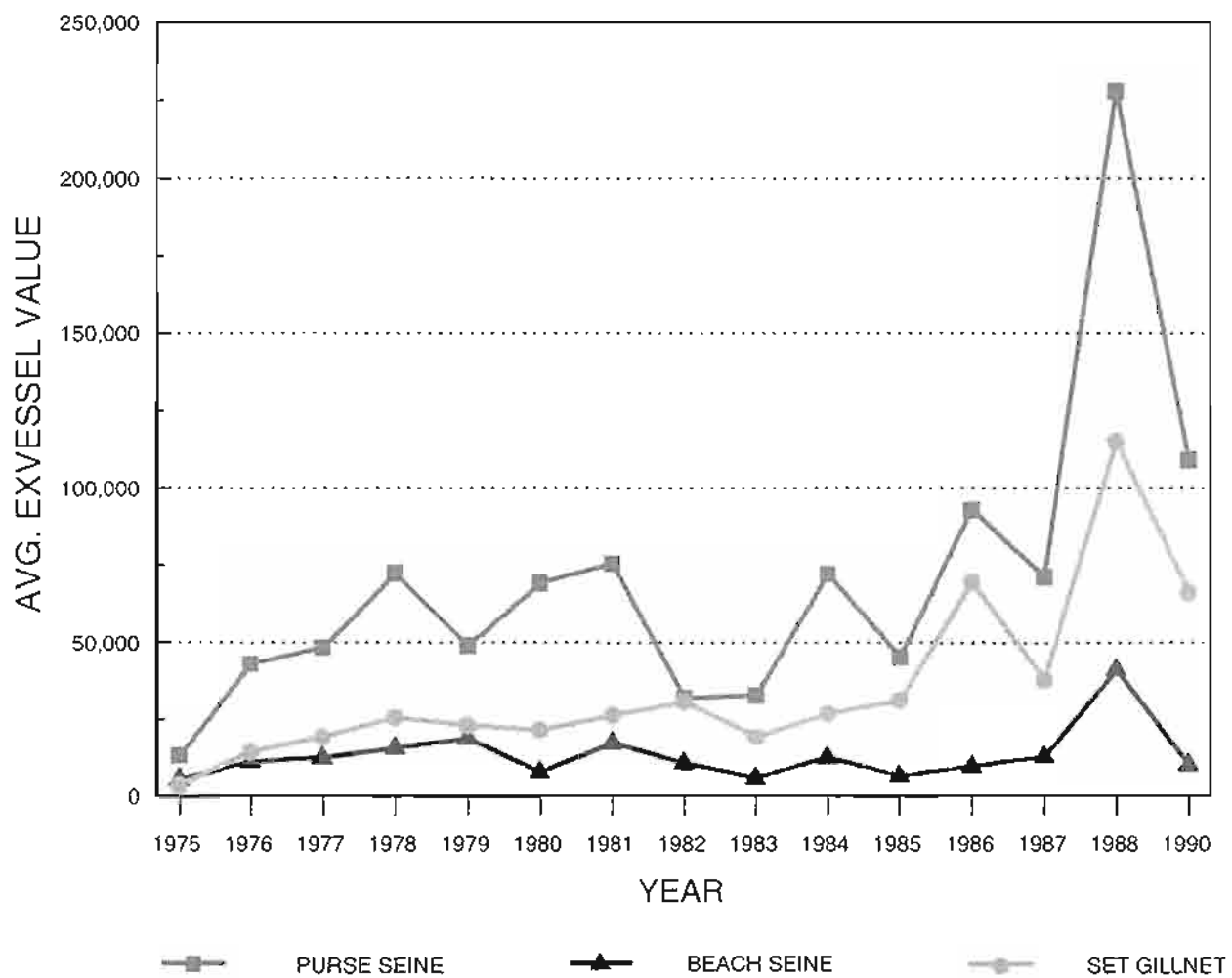


Figure 5. Estimated exvessel value by gear type, Kodiak Management Area, 1975-1990.

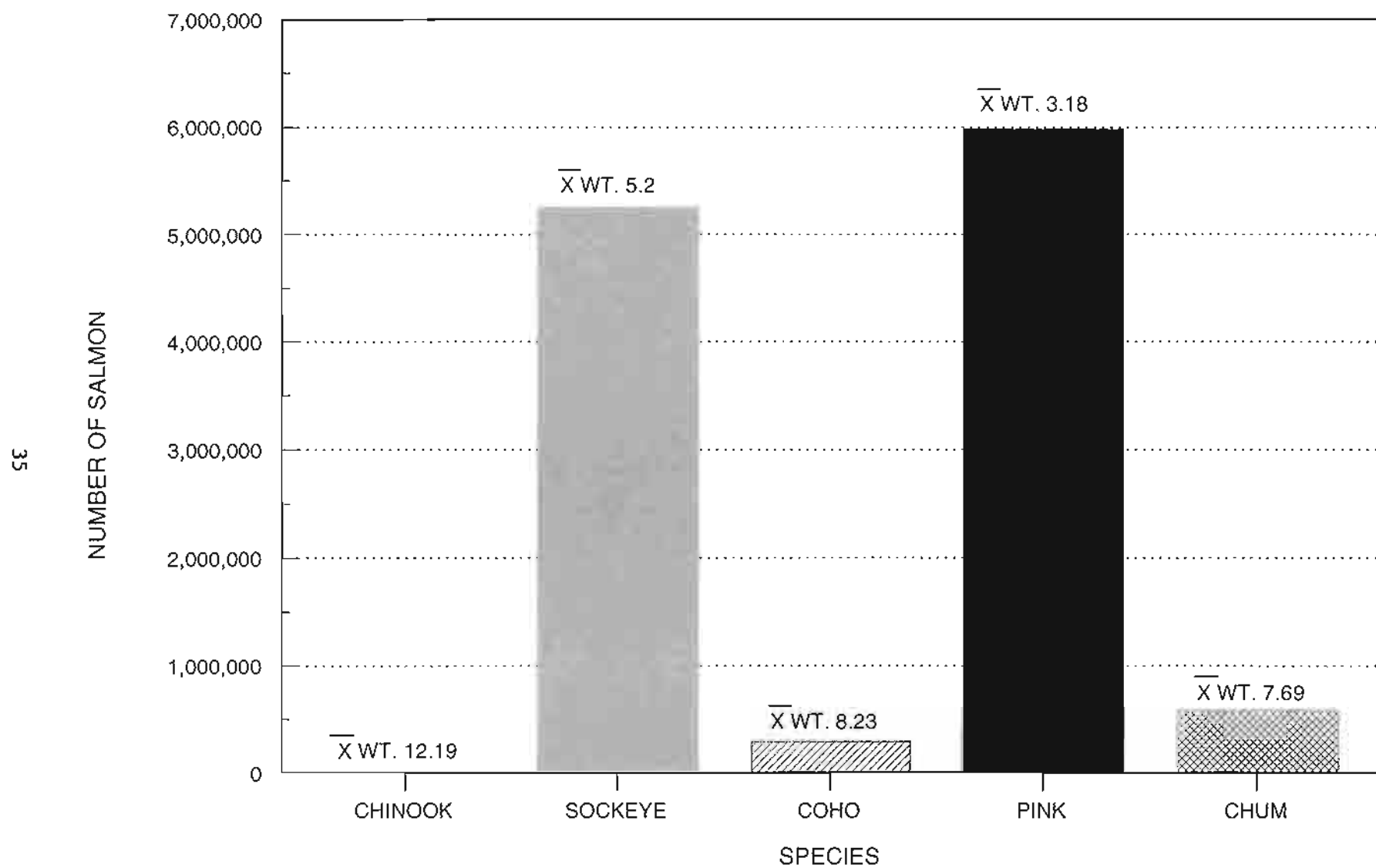


Figure 6. Number of salmon harvested and average weight by species, Kodiak Management Area, 1990.

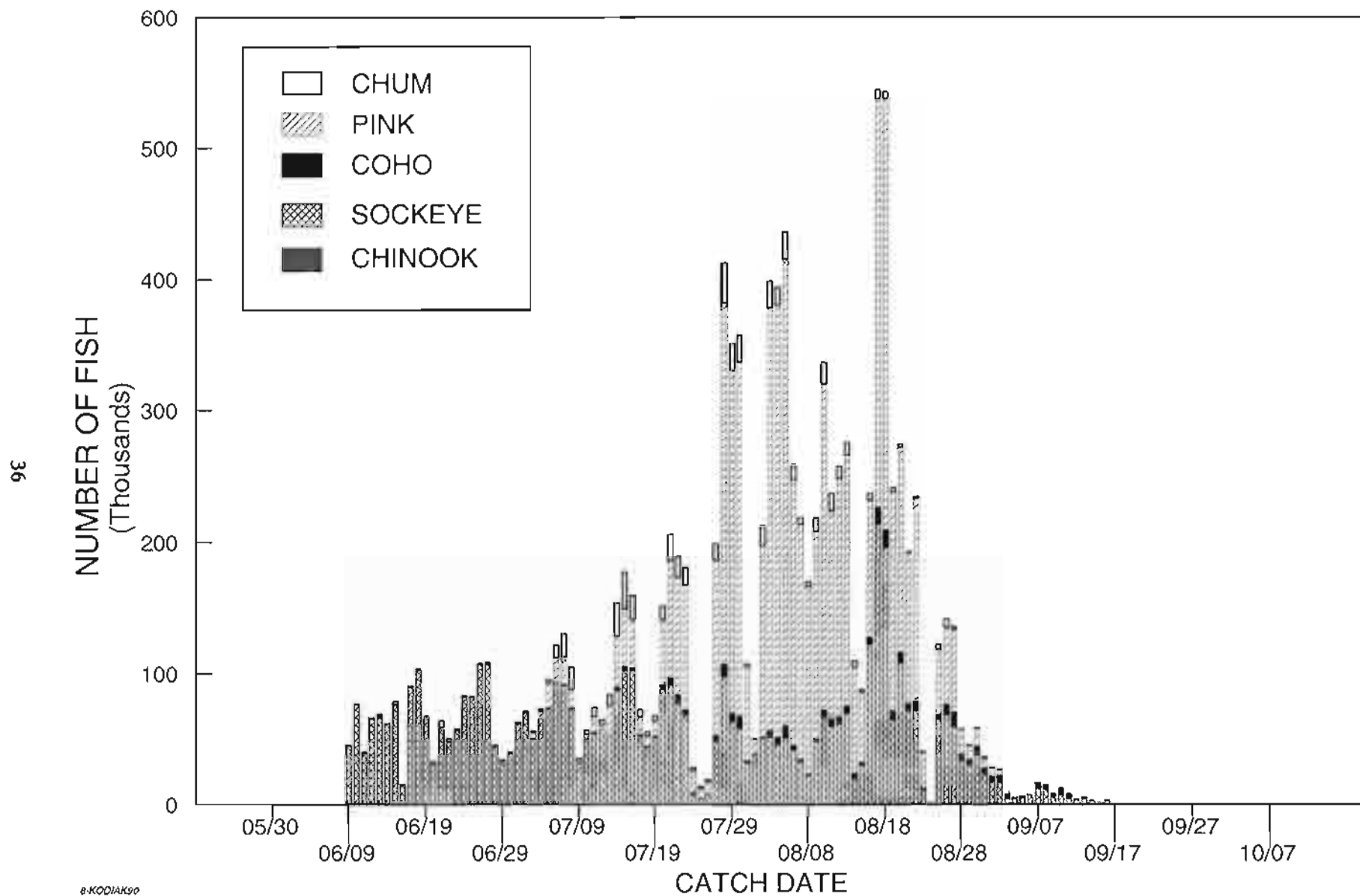


Figure 7. Salmon harvest by species, Kodiak Management Area, 1990.

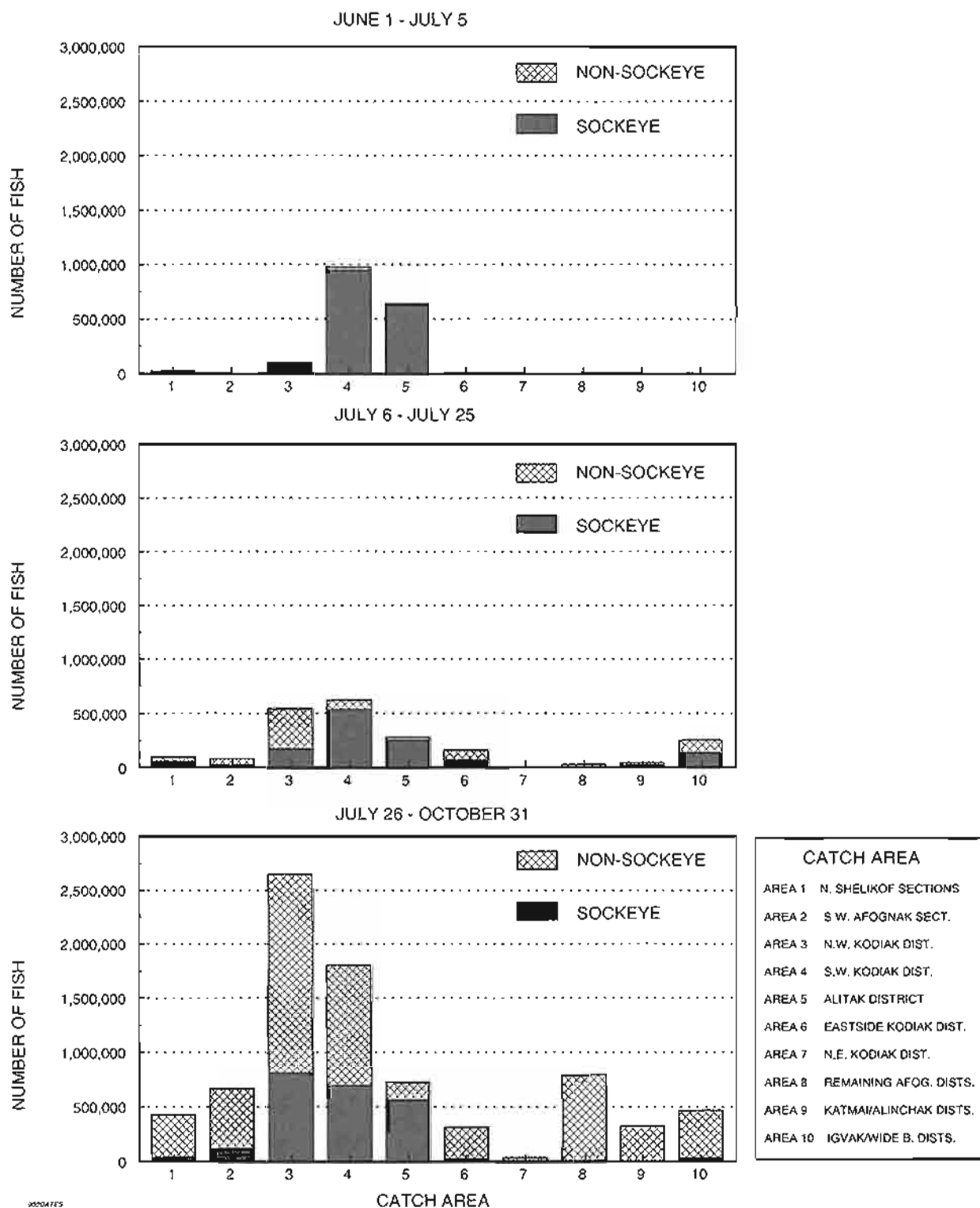
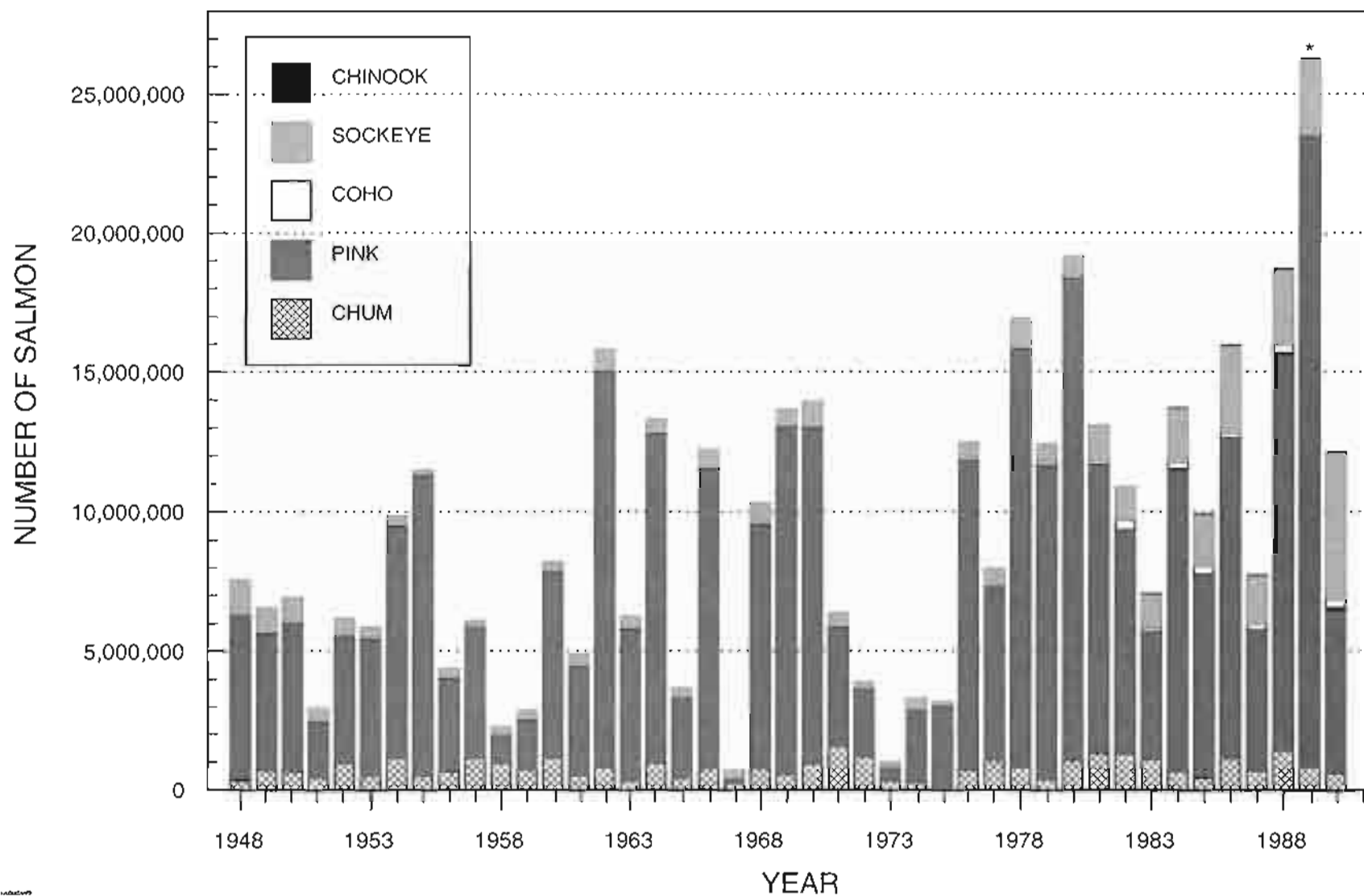
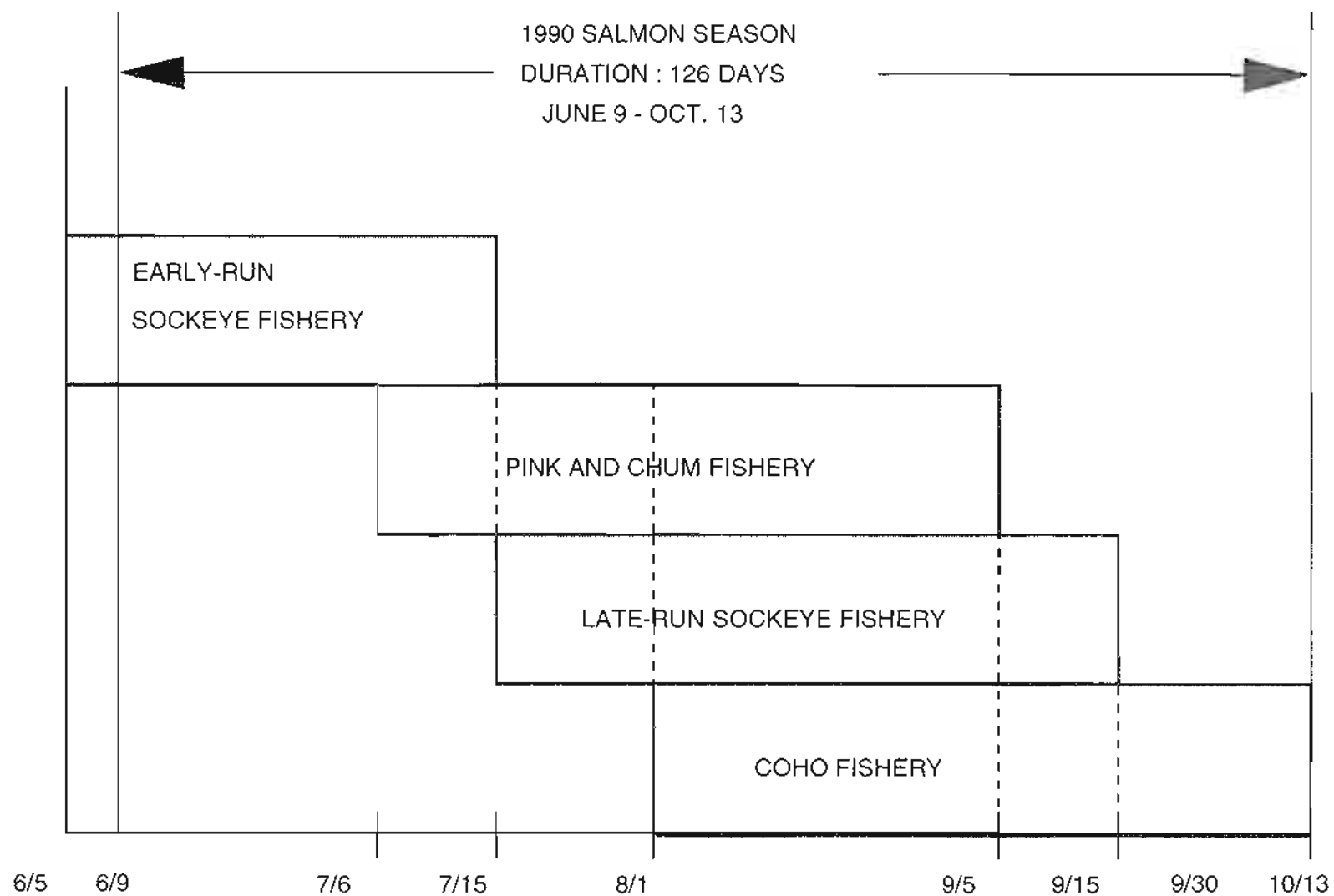


Figure 8. Comparison of the commercial sockeye salmon harvest to the non-sockeye salmon harvest, Kodiak Management Area, 1990.



* 1989 IS AN ESTIMATE OF CATCH HAD THERE BEEN A FISHERY.

Figure 9. Salmon harvest by species, Kodiak Management Area, 1948-1990.



1 CHRONOLOGY

Figure 10. Chronology of commercial salmon fisheries by species, Kodiak Management Area, 1990.

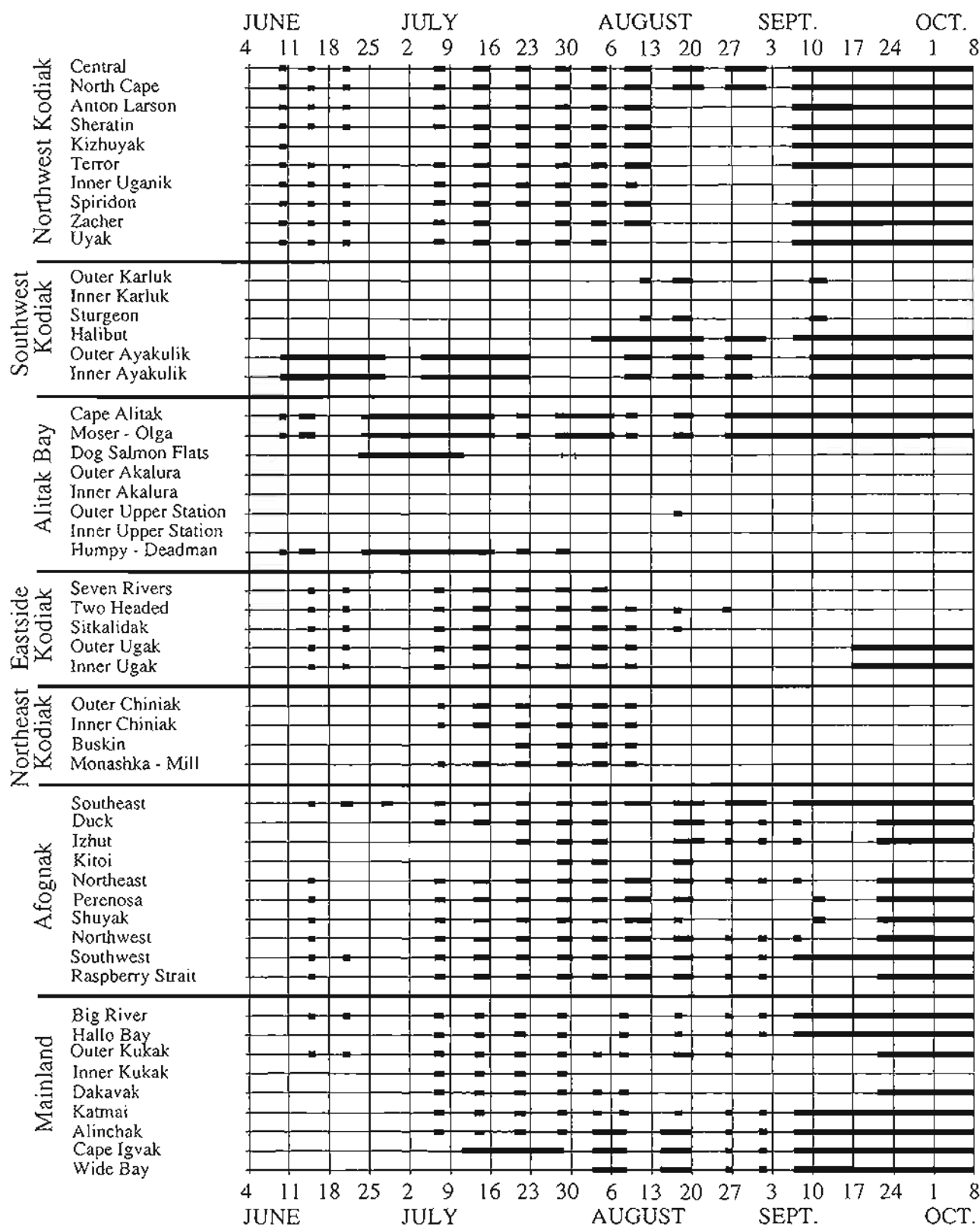


Figure 11. Commercial salmon fishing time by district and section, Kodiak Management Area, 1990.

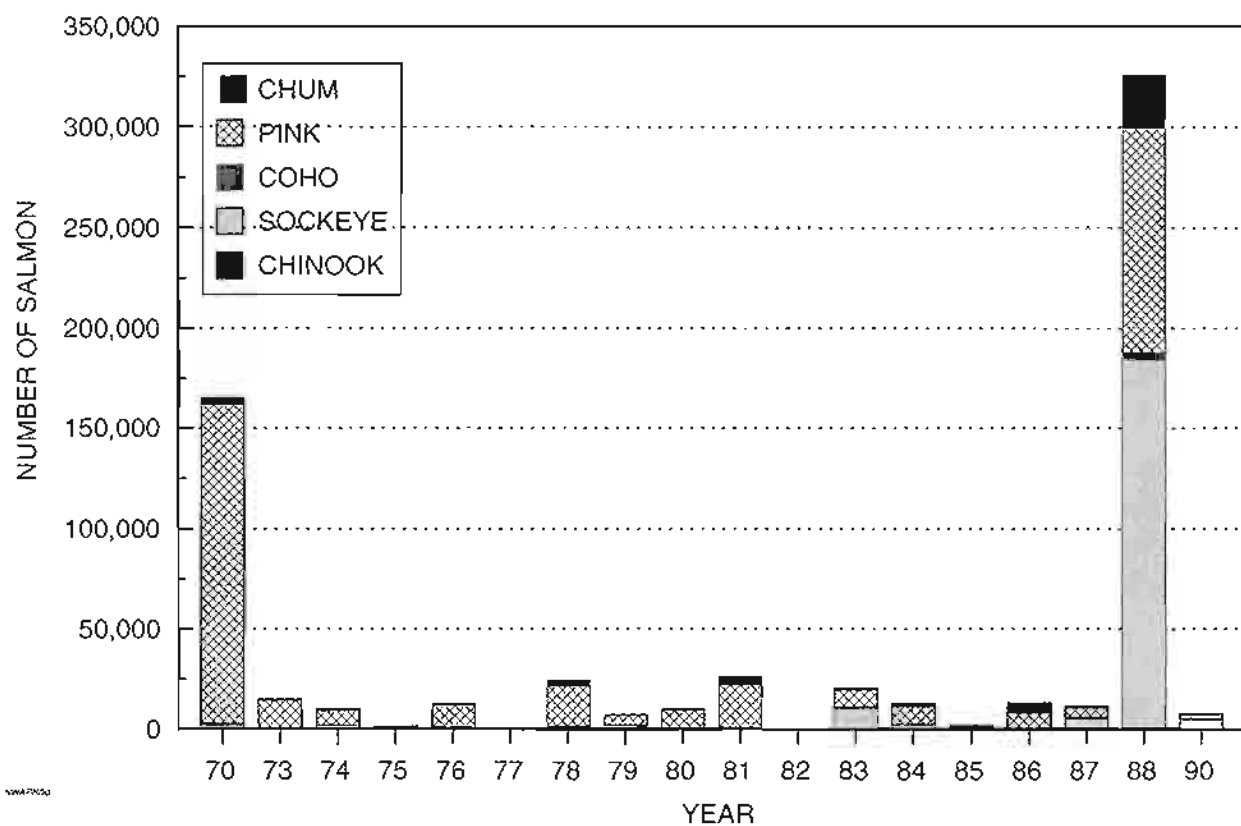


Figure 12. Historical commercial salmon harvest (July 6-July 25), by species, all gear combined, NW. Afognak and Shuyak Island Sections combined, Kodiak Management Area, 1970-1990.

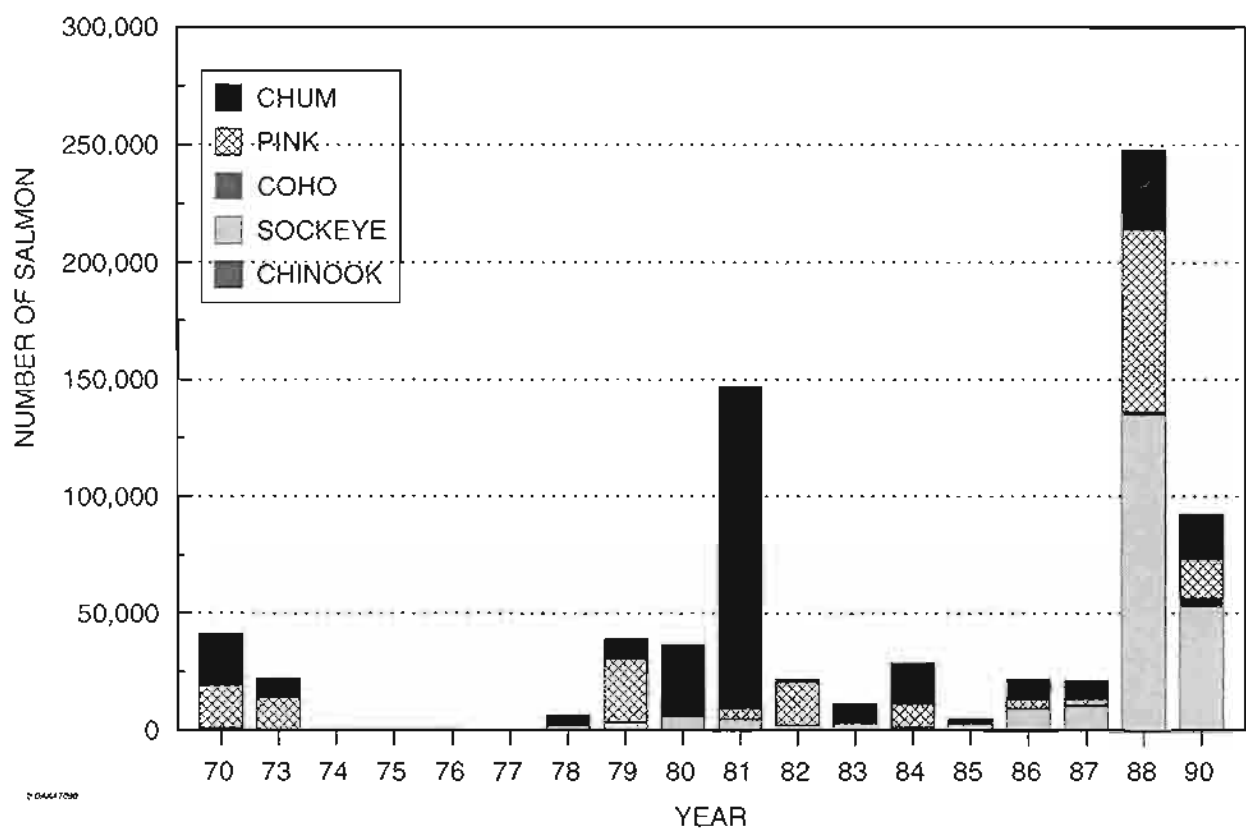


Figure 13. Historical commercial salmon harvest (July 6-July 25), by species, all gear combined, Dakavak, Inner and Outer Kukak, Hallo Bay and Big River Sections combined, Kodiak Management Area, 1970-1990.

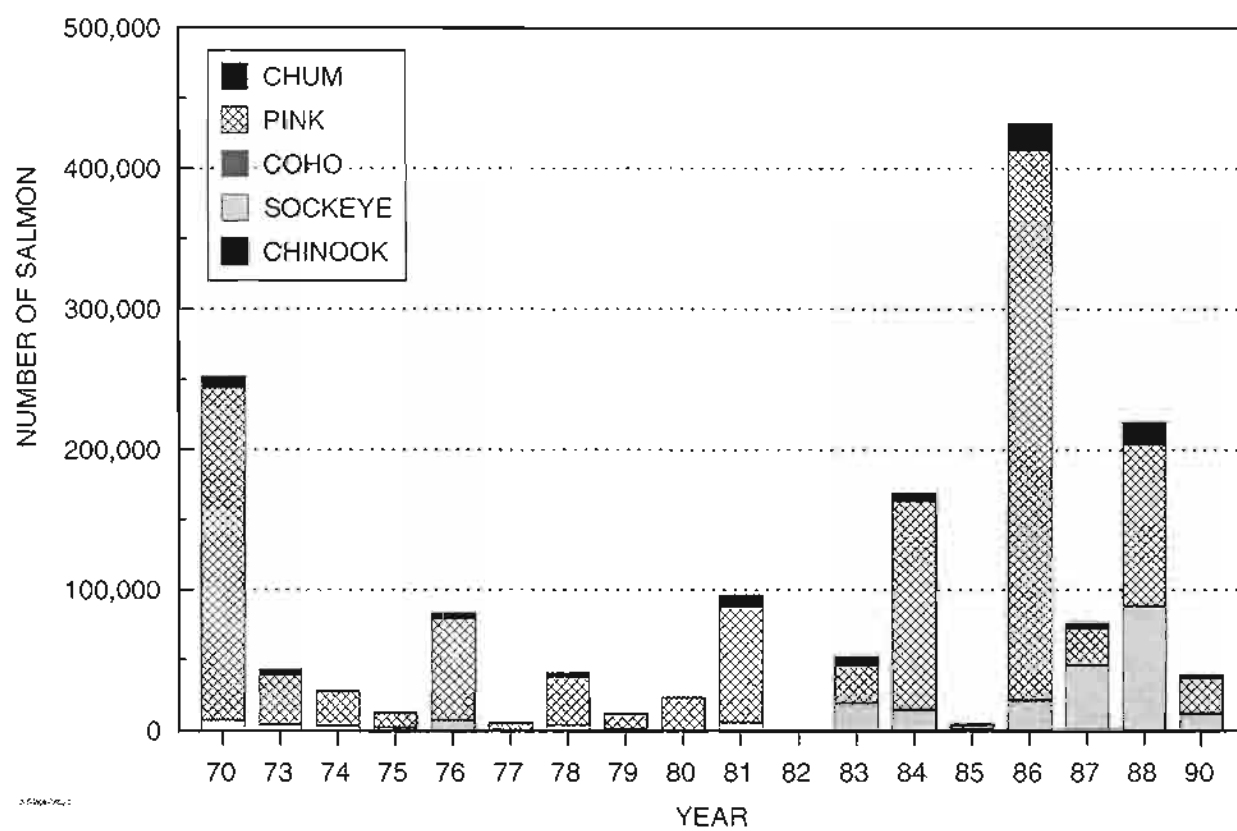


Figure 14. Historical commercial salmon harvest (July 6-July 25), by species, all gear combined, SW. Afognak Section, Kodiak Management Area, 1970-1990.

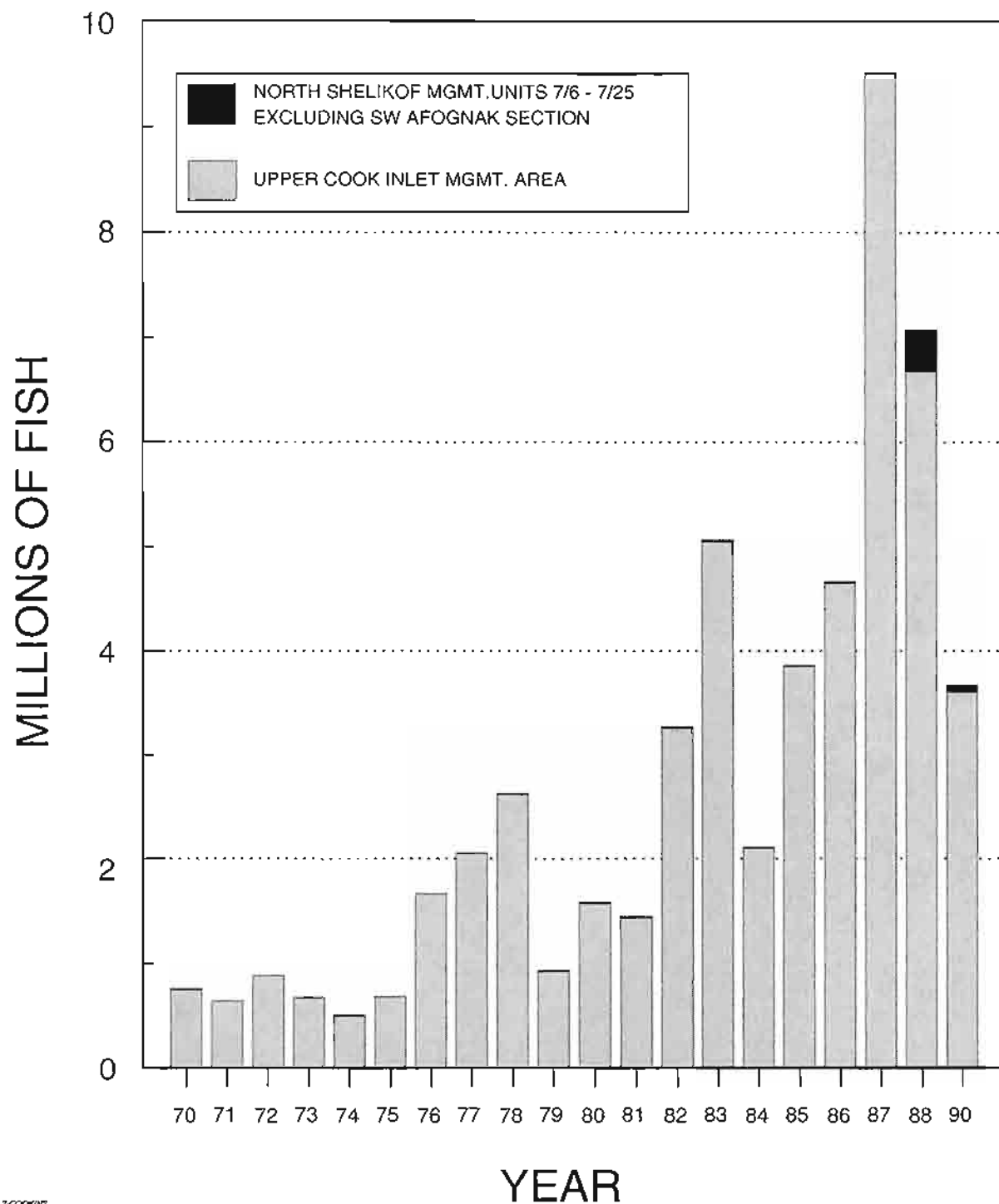


Figure 15. Historical sockeye harvest comparisons between Upper Cook Inlet and portions of North Shelikof Straits, 1970-1990. 1/

1/ THOSE MGMT. UNITS WITH THE 15,000 CAP

APPENDIX



ALASKA DEPARTMENT OF FISH AND GAME

KODIAK AREA SALMON STATISTICAL AREAS

Fifth Revision - May 1990

Prepared by J. Brodie

Approved by D. Prokopowich and K. Brennan

This map is intended as a general guide for fishermen, tender operators, and other industry personnel. For exact descriptions of the district and section boundaries, closed waters, legal gear, etcetera, please consult the current issue of the Alaska Commercial Fishery Regulations for the Kodiak Area (See Chapter 18-Articles 1, 2, and 3, and Chapter 39-Articles 1, 2, and 9).

The approximate location of each salmon stream, areas normally closed to salmon fishing, areas open to each gear type, district and section boundaries, and the statistical areas used in reporting catches are depicted on this map and are designated as follows:

Salmon streams with 500 yard saltwater closures -
Streams may have ADF&G markers deployed which designate area closed.

Salmon streams without 500 yard saltwater closures -
Streams without ADF&G markers deployed are open seaward of the exposed island bank.

Bays and lagoons closed to commercial fishing -

Seaward boundaries of districts and sections adjacent to the territorial sea boundary. (State 3 mile limit) -

District boundaries -

Section boundaries -

Statistical area boundaries -



"In the Kodiak Area, salmon may not be taken within the designated freshwater salmon streams and rivers, and all saltwater within 500 yards of a straight line extending between the seaward extremities of the exposed island banks, or as marked by ADF&G regulatory markers. Where regulatory markers have been deployed by the department to aid fishermen in determining closed waters, the marker will be placed as close as possible to the described locations or in a location deemed necessary. It is illegal to fish on the streamward side of the marker (5 AAC 18.330(a),(10) and (b)).

"According to Title 50, Part 674, of the Code of Federal Regulations, it is unlawful to engage in commercial fishing for salmon in the waters lying beyond the seaward boundary of the state (the "three mile limit") west of Cape Suckling.

" NORTH SHELKOF STRAITS SOCKEYE SALMON MANAGEMENT PLAN "

* Effective time period: July 6 - July 25.

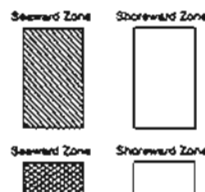
* Management units affected by this plan:

- North Shelikof Management Unit

- N.W. Alagnak Section
- Shuyak Section
- Big River Section
- Kalle Bay Section
- Outer Kulu Bay Section
- Inner Kulu Bay Section
- Davaish Bay Section

- S.W. Alagnak Management Unit

- S.W. Alagnak Section



* Specific information regarding this plan is detailed in the Harvest Strategy and in the Commercial Fishery Regulations.

* REGARDING LEGAL GEAR IN THE KODIAK AREA PLEASE NOTE THE FOLLOWING:

- In the Central Section of the Northwest Kodiak District, set gillnet, purse seine, and beach seine gear are legal (5 AAC 18.330(b)).
- The Moser/Olga Bay Section, the Dog Salmon Flats Section, the Inner and Outer Anadara Sections, and the Inner and Outer Upper Station Sections, are exclusively for set gillnet gear prior to 5 September (5 AAC 18.330(d)).
- All other salmon fishing sections in the Kodiak Area are exclusively for purse seine and beach seine gear (5 AAC 18.330(a),(c),(e),(f) and (g)).

KODIAK SALMON MANAGEMENT UNITS

NORTHWEST KODIAK DISTRICT - 10

- Central Section
- North Cape Section
- Inner Lagoon Section
- Shuyak Section
- Kulu Bay Section
- Turner Bay Section
- Inner Upper Bay Section
- Upper Bay Section
- Zacher Bay Section
- Upper Bay Section

SOUTHWEST KODIAK DISTRICT - 6

- Outer Kulu Bay Section
- Inner Kulu Bay Section
- Shuyak Section
- Moser/Olga Bay Section
- Inner Anadara Section

ALUTAK BAY DISTRICT - 8

- Cape Adak Section
- Moser/Olga Bay Section
- Dog Salmon Flats Section
- Outer Anadara Section
- Inner Anadara Section
- Outer Upper Station Section
- Inner Upper Station Section
- Moser/Olga Bay Section

EASTSIDE KODIAK DISTRICT - 5

- Moser/Olga Bay Section
- Dog Salmon Flats Section
- Moser/Olga Bay Section
- Outer Upper Bay Section
- Inner Upper Bay Section

NORTHEAST KODIAK DISTRICT - 4

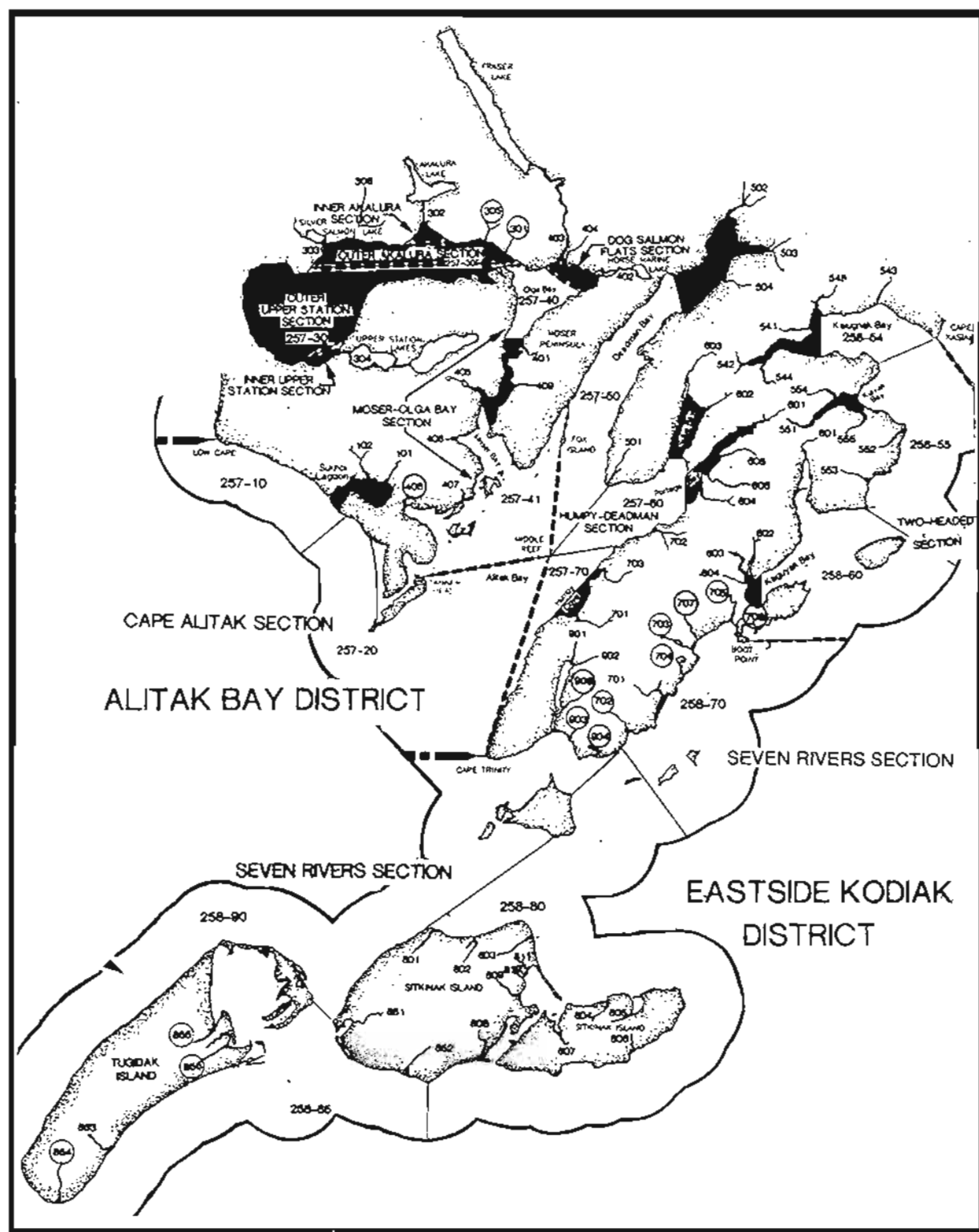
- Outer Upper Bay Section
- Inner Upper Bay Section
- Moser/Olga Bay Section

AFOONAK DISTRICT - 10

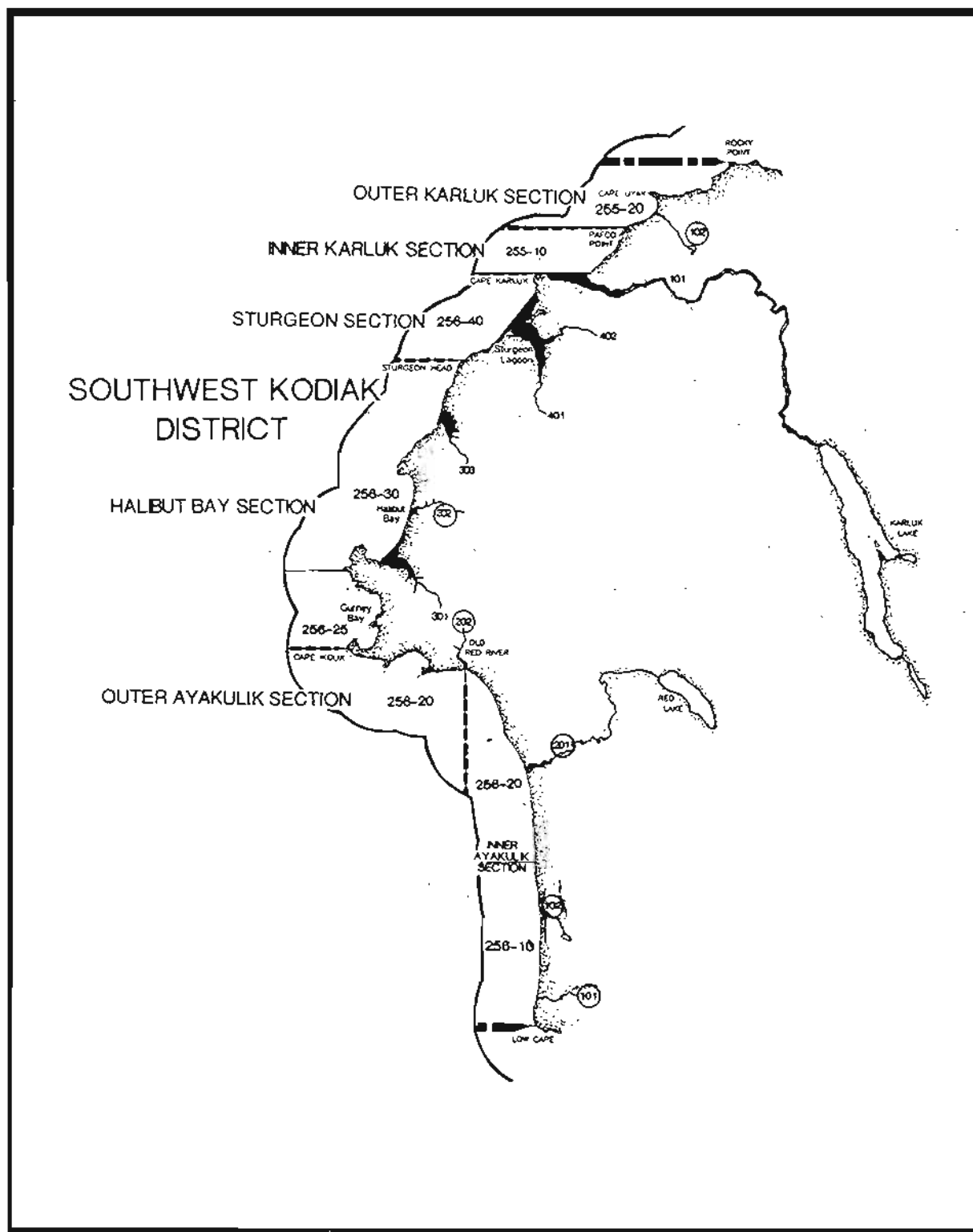
- Southeast Alagnak Section
- Outer Bay Section
- Inner Bay Section
- Outer Bay Section
- Southeast Alagnak Section
- Southeast Alagnak Section
- Southeast Alagnak Section
- Southeast Alagnak Section

MAINLAND DISTRICT - 9

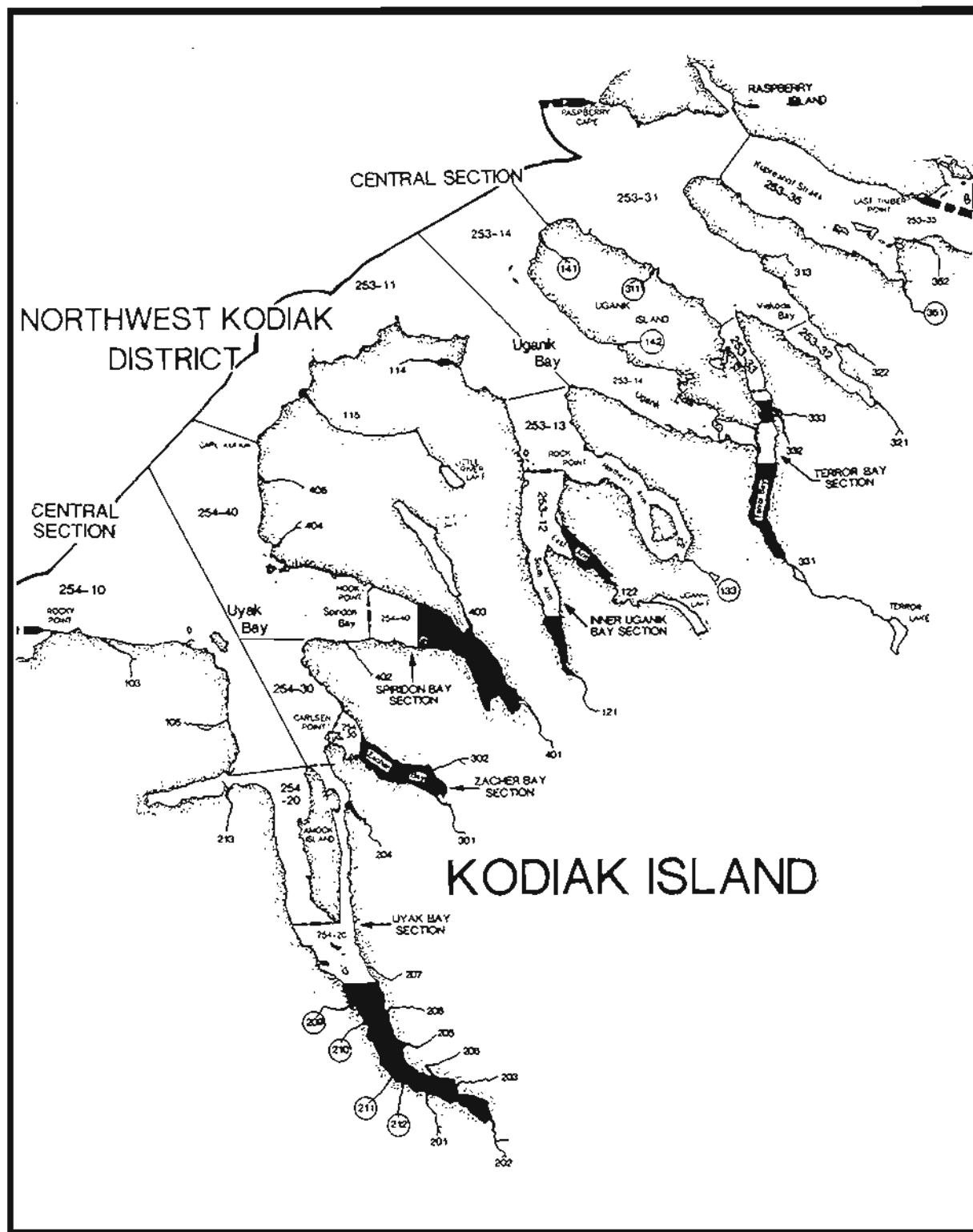
- Big River Section
- Moser/Olga Bay Section
- Outer Kulu Bay Section
- Inner Kulu Bay Section
- Outer Bay Section
- Kulu Bay Section
- Anadara Bay Section
- Outer Bay Section
- Moser/Olga Bay Section



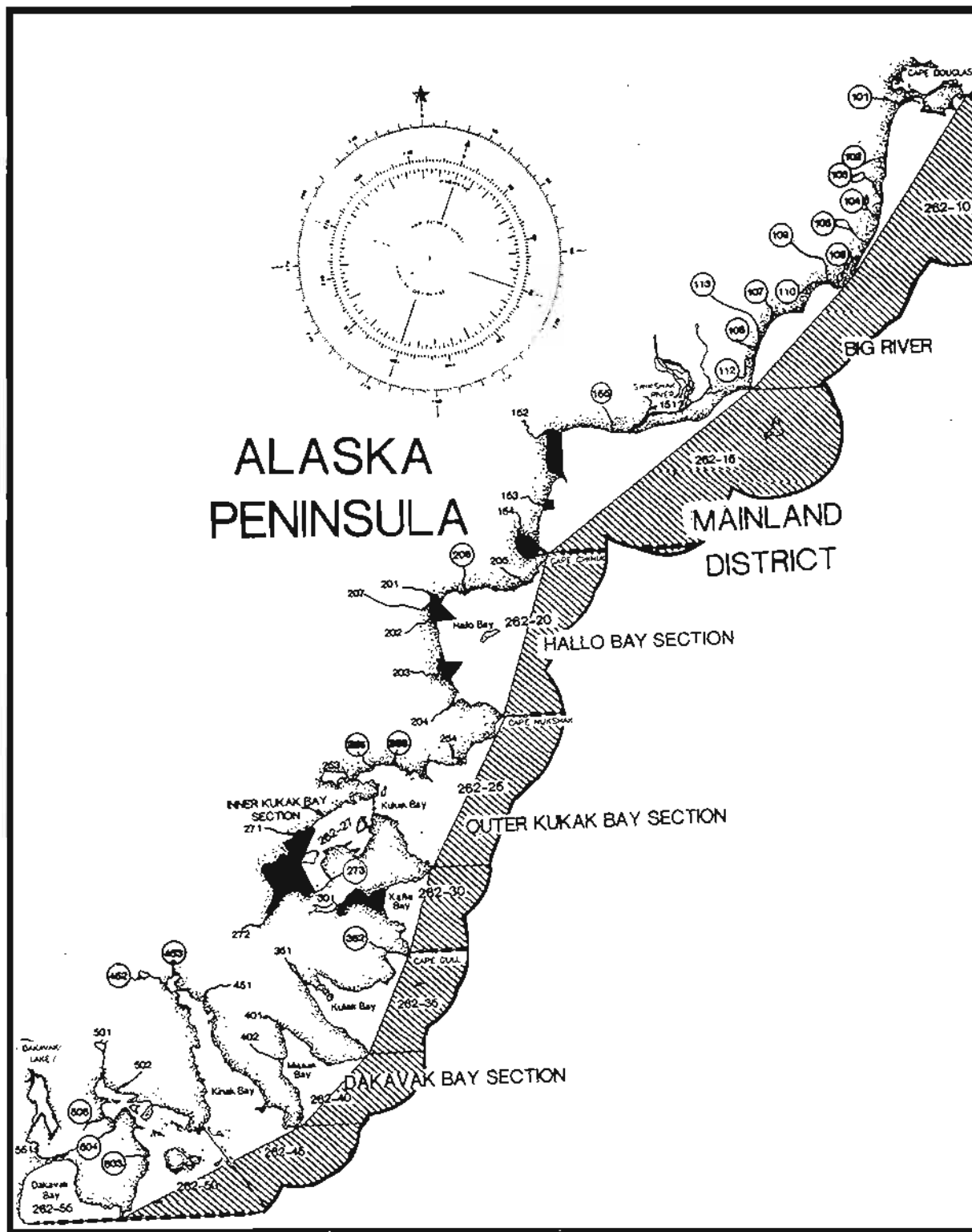
Appendix A.5. Cape Kasiak south to Low Cape, #3, Kodiak Management Area, 1990.



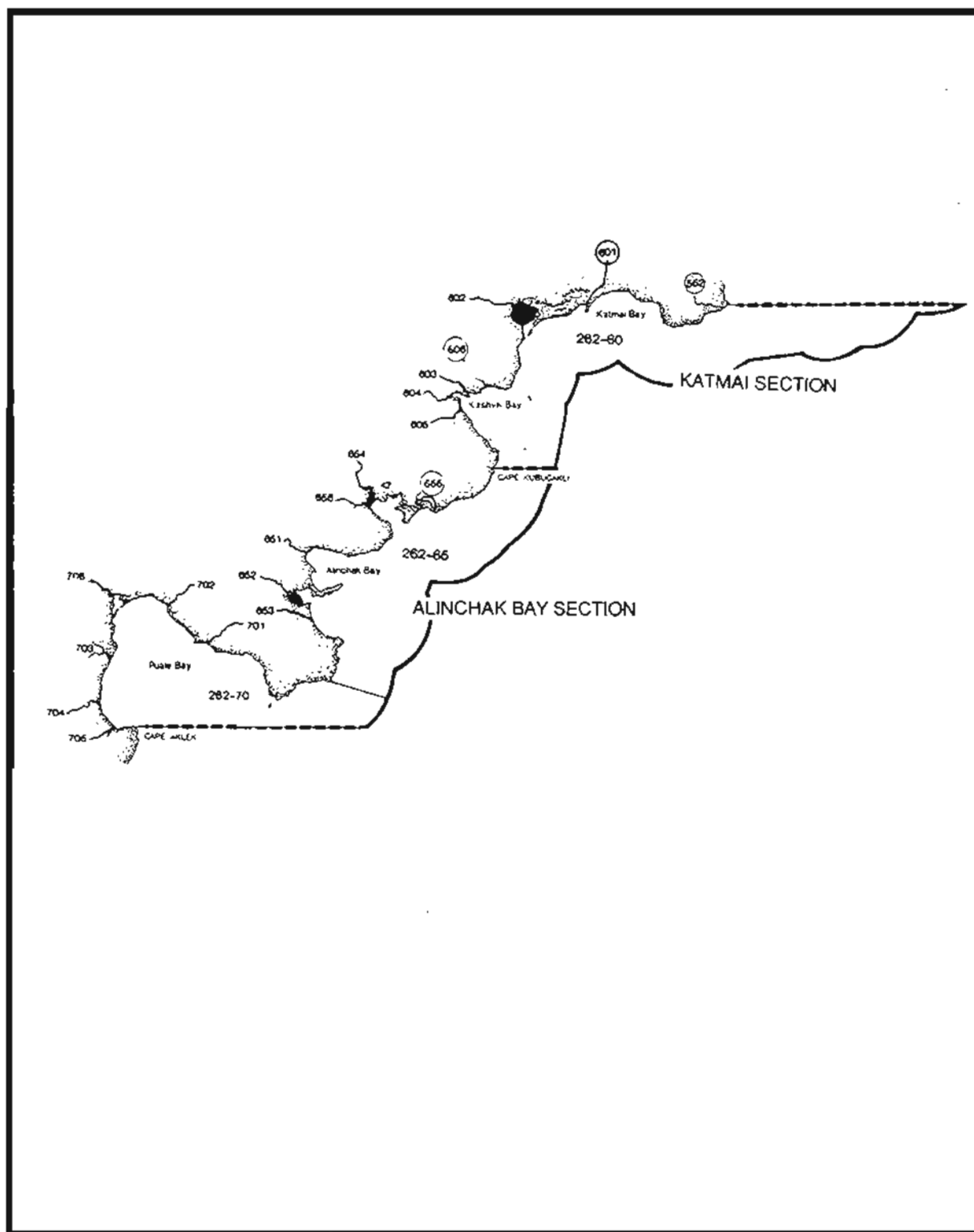
Appendix A.6. Low Cape north to Rocky Point, #4, Kodiak Management Area, 1990.



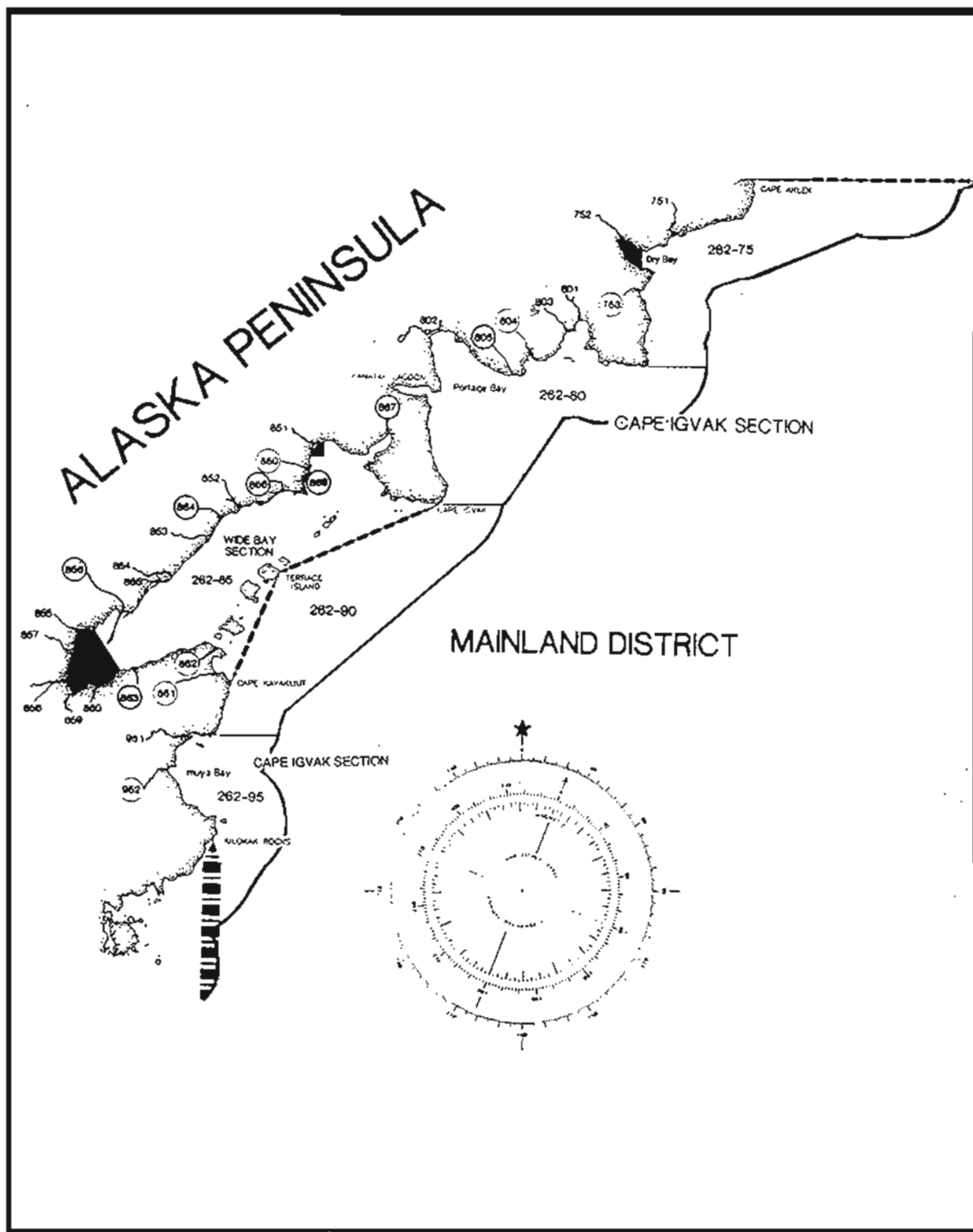
Appendix A.7. Rocky Point north to Raspberry Cape, #5, Kodiak Management Area, 1990.



Appendix A.9. Cape Douglas south to Dakavak Bay, #7, Kodiak Management Area, 1990.



Appendix A.10. Katmai Bay south to Cape Aklek, #8, Kodiak Management Area, 1990.



Appendix A.11. Aklek south to Kilokak Rocks, #9, Kodiak Management Area, 1990.

Appendix B.1. Sockeye salmon escapement goals by spawning system for the Kodiak Management Area^a, 1990.

System		Escapement (in 1,000's of fish) ^a		
Name	Number	Minimum	Mid Pt.	Targeted
Weirs				
Karluk	255-101	560	730	900
Ayakulik	256-201	200	250	300
Upper Station	257-304	200	238	275
Frazer	257-401	140	170	200
Litnik	252-342	40	50	60
Saltery	259-415	20	30	40
Pauls	251-831	20	30	40
Buskin	259-211	10	13	15
Akalura	257-302	40	50	60
Uganik Lake	253-122	40	50	60
Subtotal		1,270	1,611	1,950
Non weir (indexed escapement)^b				
Barabara Cove	259-363	1	3	5
Bear Lake	262-655	1	3	5
Big Bay	251-601	1	3	5
Horse Marine	257-402	5	8	10
Kafliia	262-301	15	20	25
Kaguyak	258-706	0.5	1	1
Kanatak	262-802	1	3	5
Kuliak	262-351	1	3	5
Little Afognak	252-319	1	3	5
Little Danger	252-331	1	1	1
Little Kitoi	252-323	1	1	1
Little River	253-116	15	20	25
Long Lagoon Cr.	251-301	1	3	5
Malina	251-105	5	8	10
Matfay	257-704	0.5	1	1
Miam	259-412	1	3	5
Ocean Beach	258-401	5	8	10
Old Red River	258-202	0.5	1	1
Paramonof	251-301	1	1	1
Pasagshak	259-411	1	3	5
Perenosa	251-825	5	8	10
Pivot Point	258-212	0.5	1	1
Red Fox	251-505	1	1	1
Russian Harbor	258-901	1	1	1
Selief	251-101	1	3	5
Silver Salmon	257-303	1	3	5

-Continued-

Appendix B.1. (page 2 of 2)

Name	System Number	Escapement (in 1,000's of fish) ^a		
		Minimum	Mid Pt.	Targeted
Swikshak	262-151	15	20	25
Slough Crk.	262-105	0.5	1	1
Thorsheim	251-302	5	8	10
<i>Total indexed escapement ^b</i>		88.5	143	190.0
<i>Estimated total escapement for indexed systems^c</i>		177	286	380
<i>Estimated total escapement for systems with weirs and indexed by aerial surveys</i>		1,447	1,754	2,140

^a Source: Barrett et al. (1990) and Malloy et al. (1992).

^b Indexed escapement represents a peak aerial escapement count.

^c Indexed escapement expanded by a factor of 2.0 for an estimate of total escapement (Barrett et al. 1985).

Appendix B.2. Pink salmon odd and even year index stream escapement goals for the Kodiak Management Area, 1990.

Index Stream	Stream Number	Even Year Indexed Goal ^{a,b}		Odd Year Indexed Goal ^{a,b}	
		Minimum	Targeted	Minimum	Targeted
APOGNAK DISTRICT					
Malina	(251-105)	20,000	60,000	5,000	15,000
Paramanof	(251-404)	10,000	30,000	5,000	15,000
Little Waterfall ^c	(251-822)	15,000	45,000	15,000	45,000
Discoverer	(251-830)	20,000	60,000	20,000	60,000
Pauls Bay ^c	(251-831)	3,000	9,000	3,000	9,000
Seal Bay	(251-901)	5,000	15,000	5,000	15,000
Big Danger	(252-332)	15,000	45,000	10,000	30,000
Marka	(252-334)	30,000	90,000	10,000	30,000
Litnik ^c	(252-342)	30,000	90,000	10,000	30,000
Subtotal		148,000	444,000	83,000	249,000
N.W. KODIAK DISTRICT					
Sheratin	(253-371)	15,000	45,000	10,000	30,000
Baumans	(253-333)	5,000	15,000	5,000	15,000
Terror	(253-331)	40,000	120,000	30,000	90,000
Uganik	(253-122)	80,000	240,000	70,000	210,000
Little	(253-115)	40,000	120,000	15,000	45,000
Zachar	(254-301)	40,000	120,000	20,000	60,000
Browns	(254-204)	40,000	120,000	5,000	15,000
Uyak	(254-202)	50,000	150,000	50,000	150,000
Uyak	(259-203)	5,000	15,000	15,000	45,000
Subtotal		315,000	945,000	220,000	660,000
S.W. KODIAK DISTRICT					
Karluk ^c	(255-101)	800,000	1,600,000	20,000	60,000
Sturgeon	(256-401)	50,000	150,000	5,000	15,000
Ayakuiik ^c	(256-201)	400,000	800,000	5,000	15,000
Subtotal		1,250,000	2,550,000	30,000	90,000
ALITAK DISTRICT					
Narrows	(257-401)	2,000	6,000	2,000	6,000
Dog Salmon ^c	(257-403)	50,000	150,000	60,000	180,000
Deadman	(257-502)	40,000	120,000	60,000	180,000
Humpy	(257-701)	70,000	210,000	90,000	270,000
Subtotal		162,000	486,000	212,000	636,000
N.E. KODIAK DISTRICT					
Sid Olds	(259-242)	30,000	90,000	30,000	90,000
American	(259-231)	30,000	90,000	30,000	90,000
Buskin ^c	(259-211)	60,000	180,000	50,000	150,000
Subtotal		120,000	360,000	110,000	330,000
EASTSIDE KODIAK DISTRICT					
7-Rivers	(258-701)	40,000	120,000	40,000	120,000
Kaiugnak	(258-542)	10,000	30,000	10,000	30,000
Barling	(258-522)	30,000	90,000	30,000	90,000
Kiliuda	(258-207)	20,000	60,000	10,000	30,000
Saltery ^c	(259-415)	20,000	60,000	30,000	90,000
Miam	(259-412)	20,000	60,000	10,000	30,000
Hurst	(259-414)	10,000	30,000	10,000	30,000
Subtotal		150,000	450,000	140,000	420,000
MAINLAND KODIAK DISTRICT					
Big River	(262-152)	10,000	30,000	10,000	30,000
Village	(262-153)	15,000	45,000	15,000	45,000
Cape Chiniak	(262-205)	5,000	15,000	3,000	9,000
Big Hallo	(262-203)	2,000	6,000	2,000	6,000
Kukak	(262-271)	3,000	9,000	2,000	6,000
Missak	(262-402)	5,000	15,000	3,000	9,000
Kinak	(262-451)	20,000	60,000	20,000	60,000

-Continued-

Index Stream	Stream Number	Even Year Indexed Goal ^{a,b}		Odd Year Indexed Goal ^{a,b}	
		Minimum	Targeted	Minimum	Targeted
MAINLAND KODIAK DISTRICT (continued)					
Geographic	(262-501)	4,000	12,000	4,000	12,000
Dakavak	(262-551)	25,000	75,000	20,000	60,000
Kashvik	(262-604)	25,000	75,000	25,000	75,000
Big Alinchak	(262-651)	30,000	90,000	20,000	60,000
Portage	(262-702)	15,000	45,000	10,000	30,000
Oil	(262-751)	15,000	45,000	10,000	30,000
Jute	(262-801)	2,000	6,000	1,000	3,000
Kanatak	(262-802)	10,000	30,000	10,000	30,000
Big Creek	(262-851)	70,000	210,000	60,000	180,000
	Subtotal	256,000	768,000	215,000	645,000
GRAND TOTAL ^d		2,401,000	6,003,000	1,010,000	3,030,000

^a Source: Barrett et al. (1990) and Malloy et al. (1992).

^b Index escapement for non weir systems are peak counts.

^c Systems where the escapement is counted through weirs.

^d The 51 listed index streams average 73% of the total KMA escapement based on 1969-87 escapement distribution data from 1966 through 1991.

Appendix B.3. Chum salmon indexed escapement goals and estimated total escapement goals for selected streams, 1990.

Index Stream	Stream Number	Indexed Escapement*		Estimated Total Escapement*		
		Minimum	Targeted	Minimum	Targeted	Mid Point
NORTHWEST KODIAK DISTRICT						
Red Cloud	(259-382)	3,000	9,000	4,173	12,518	8,345
Slough Trail	(259-383)	1,000	3,000	1,391	4,173	2,782
Sheratin	(259-371)	5,000	15,000	6,954	20,863	13,908
Kizhuyak	(259-365)	8,000	24,000	11,127	33,380	22,253
Terror	(253-331)	5,000	15,000	6,954	20,863	13,908
Uganik	(253-122)	10,000	30,000	13,908	41,725	27,817
Spiridon	(254-401)	15,000	45,000	20,863	62,588	41,725
Zachar	(254-301)	15,000	45,000	20,863	62,588	41,725
Uyak	(254-202)	10,000	30,000	13,908	41,725	27,817
Subtotal		72,000	216,000	100,140	300,421	200,281
SOUTHWEST KODIAK DISTRICT						
Sturgeon	(256-401)	50,000	150,000	69,542	208,626	139,084
Subtotal		50,000	150,000	69,542	208,626	139,084
ALITAK DISTRICT						
Big Sukhoi	(257-102)	20,000	60,000	27,817	83,450	55,633
Dog Salmon ^b	(257-403)	2,000	6,000	2,000	6,000	4,000
Narrows	(257-401)	2,000	6,000	2,782	8,345	5,563
Deadman	(257-502)	5,000	15,000	6,954	20,863	13,908
Sulua	(257-603)	8,000	24,000	11,127	33,380	22,253
Portage	(257-601)	1,000	3,000	1,391	4,173	2,782
Subtotal		38,000	114,000	52,070	156,210	104,140
NORTHEAST KODIAK DISTRICT						
Kalsin River	(259-243)	1,000	3,000	1,391	4,173	2,782
Sid Olds	(259-242)	6,000	18,000	8,345	25,035	16,690
American	(259-231)	6,000	18,000	8,345	25,035	16,690
Salt Creek	(259-233)	2,000	6,000	2,782	8,345	5,563
Salonie Creek	(259-223)	1,000	3,000	1,391	4,173	2,782
Russian River	(259-222)	2,000	6,000	2,782	8,345	5,563
Sargent Creek	(259-221)	2,000	6,000	2,782	8,345	5,563
Subtotal		20,000	60,000	27,817	83,450	55,633
EASTSIDE KODIAK DISTRICT						
Sickinak Chum	(258-807)	3,000	9,000	4,173	12,518	8,345
Kaguyak	(258-602)	5,000	15,000	6,954	20,863	13,908
Kiavak Portage	(258-551)	1,000	3,000	1,391	4,173	2,782
Kaiugnak	(258-603)	3,000	9,000	4,173	12,518	8,345
Barling	(258-522)	3,000	9,000	4,173	12,518	8,345
Midway	(258-521)	5,000	15,000	6,954	20,863	13,908
Newman	(258-513)	3,000	9,000	4,173	12,518	8,345
Natalia	(258-512)	3,000	9,000	4,173	12,518	8,345
Rolling	(258-511)	4,000	12,000	5,563	16,690	11,127
Amee	(258-301)	1,000	3,000	1,391	4,173	2,782
McCord Beach	(258-302)	1,000	3,000	1,391	4,173	2,782
Pivot Point	(258-212)	1,000	3,000	1,391	4,173	2,782
Marker Grove	(258-211)	1,000	3,000	1,391	4,173	2,782
Dukaluk	(258-208)	2,000	6,000	2,782	8,345	5,563
W. Kiliuda	(258-207)	8,000	24,000	11,127	33,380	22,253
E. Kiliuda	(258-206)	3,000	9,000	4,173	12,518	8,345
Burn's Spit	(258-210)	1,000	3,000	1,391	4,173	2,782
Coxcomb Point	(258-205)	6,000	18,000	8,345	25,035	16,690
Dog Bay	(258-204)	6,000	18,000	8,345	25,035	16,690
Shearwater	(258-202)	1,000	3,000	1,391	4,173	2,782
Gull Cape	(259-428)	8,000	24,000	11,127	33,380	22,253
Eagle Harbor	(259-424)	4,000	12,000	5,563	16,690	11,127
Kiliuda Pass	(259-423)	2,000	6,000	2,782	8,345	5,563
Hidden Basin	(259-418)	4,000	12,000	5,563	16,690	11,127

-Continued-

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Index Stream	Stream Number	Indexed		Est. Total		Mid Point
		Minimum	Desired	Minimum	Desired	
Wild Creek	(259-417)	2,000	6,000	2,782	8,345	5,563
Rough Creek	(259-416)	3,000	9,000	4,173	12,518	8,345
Saltery ^b	(259-415)	2,000	6,000	2,000	6,000	4,000
Miam	(259-412)	2,000	6,000	2,782	8,345	5,563
Subtotal		88,000	264,000	121,612	364,836	243,224
MAINLAND DISTRICT						
Productive Forks	(262-108)	1,000	3,000	1,391	4,173	2,782
Swikshak	(262-151)	2,000	6,000	2,782	8,345	5,563
Big River	(262-152)	40,000	120,000	55,633	166,900	111,267
Village Creek	(262-153)	10,000	30,000	13,908	41,725	27,817
Chiniak Lagoon	(262-154)	8,000	24,000	11,127	33,380	22,253
Ninagiak	(262-201)	5,000	15,000	6,954	20,863	13,908
Serpent	(262-203)	10,000	30,000	13,908	41,725	27,817
Cape Chiniak	(262-205)	1,000	3,000	1,391	4,173	2,782
Kukak River	(262-271)	60,000	180,000	83,450	250,351	166,900
Kukak Valley	(262-272)	3,000	9,000	4,173	12,518	8,345
Kinak Creek	(262-451)	2,000	6,000	2,782	8,345	5,563
Dakavak	(262-551)	10,000	30,000	13,908	41,725	27,817
Alagogshak	(262-602)	25,000	75,000	34,771	104,313	69,542
Kashvik	(262-604)	5,000	15,000	6,954	20,863	13,908
Big Alinchak	(262-651)	2,000	6,000	2,782	8,345	5,563
Little Alinchak	(262-652)	1,000	3,000	1,391	4,173	2,782
East Bear	(262-654)	8,000	24,000	11,127	33,380	22,253
West Bear	(262-656)	3,000	9,000	4,173	12,518	8,345
Portage	(262-702)	1,000	3,000	1,391	4,173	2,782
Teresa	(262-703)	8,000	24,000	11,127	33,380	22,253
Trail Creek	(262-704)	8,000	24,000	11,127	33,380	22,253
Dry Bay	(262-752)	8,000	24,000	11,127	33,380	22,253
Jute	(262-801)	1,000	3,000	1,391	4,173	2,782
Kanatak	(262-802)	1,000	3,000	1,391	4,173	2,782
Big Creek	(262-851)	10,000	30,000	13,908	41,725	27,817
Kialagvik	(262-858)	8,000	24,000	11,127	33,380	22,253
Icy Peak	(262-859)	1,000	3,000	1,391	4,173	2,782
Subtotal		242,000	726,000	336,583	1,009,748	673,165
GRAND TOTAL		510,000	1,530,000	707,764	2,123,291	1,415,528
Estimated Total Kodiak Management Area Escapement ^c				784,440	2,353,321	1,568,881

^a Source: Barrett et al. (1990) and Malloy et al. (1992)

^b Systems where the escapement is counted through weirs.

^c The 78 listed index streams supported 90.2% of the total KMA chum escapement in 1989. The estimated total KMA escapement goal minimum, desired, and mid point values were determined from this relationship.

Appendix B.4. Coho salmon escapement goals for fish weir systems in the Kodiak Management Area, 1990.

Weir Site	Interim Goals ^a	Interim Dates															
		8/15		8/20		8/25		8/31		9/5		9/10		9/15		9/20	
		Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)
Karluk (255-101)	Min. Des.	- -	- -	50 500	- -	100 1,000	(1,400) (2,000)	300 3,000	(2,200) (4,000)	1,500 3,000	(3,500) (6,000)	3,000 6,000	(7,000) (9,000)	8,000 9,000	(5,000) (8,000)	10,000 20,000	(5,000) (5,000)
Ayakulik (256-201)	Min. Des.	500 2,000	(1,000) (1,500)	3,000 6,000	(2,000) (2,500)	4,000 7,000	(3,500) (5,000)	7,000 13,000	(5,000) (6,000)	10,000 15,000	(7,000) (8,000)	12,000 18,000	(6,000) (9,000)	- -	(6,000) (8,000)	- -	(2,000) (4,000)
Dog Salmon (257-403)	Min. Des.	- -	(100) (200)	50 200	- -	500 1,500	- -	1,500 3,000	- -	2,000 4,500	- -	2,500 4,500	- -	3,500 5,500	- -	- -	(1,000) (3,000)
Upper Station (257-304)	Min. Des.	- -	- -	50 200	- -	500 1,500	- -	1,500 3,500	- -	2,000 4,000	- -	2,500 4,500	- -	3,500 5,500	- -	- -	- -
Akalura (257-302)	Min. Des.	- -	- -	- -	- -	50 200	- -	250 1,000	- -	500 1,500	- -	1,000 2,500	- -	1,500 3,500	- -	- -	- -
Horse Marine (257-402)	Min. Des.	- -	- -	- -	- -	50 100	- -	200 400	- -	400 800	- -	800 1,600	- -	1,000 2,500	- -	- -	- -
Saltery (259-415)	Min. Des.	- -	- -	- -	(100) (500)	50 100	(500) (1,000)	300 1,000	(1,000) (2,000)	1,000 2,000	(1,000) (2,000)	2,000 3,000	(1,000) (2,000)	2,500 4,000	(2,000) (3,000)	3,000 5,000	(2,000) (5,000)
Buskin (259-211)	Min. Des.	25 100	- -	100 300	- -	300 500	- -	400 1,000	- -	1,000 2,000	- -	2,000 3,500	- -	2,000 4,000	- -	3,000 5,000	(3,000) ^b (4,000)
Litnik (252-342)	Min. Des.	500 2,000	- -	1,000 3,000	- -	1,500 4,000	- -	2,000 5,000	- -	2,500 6,000	- -	3,000 7,000	- -	3,500 8,000	- -	- -	- -
Pauls (251-831)	Min. Des.	500 2,000	- -	1,500 3,000	- -	3,000 5,000	- -	3,500 6,000	- -	4,500 7,000	- -	5,500 8,000	- -	6,500 9,000	- -	- -	- -
Perenosa (251-830)	Min. Des.	50 500	- -	500 1,000	- -	1,000 3,000	- -	1,300 2,800	- -	1,500 3,000	- -	1,700 3,200	- -	2,000 3,500	- -	- -	- -
Big Bay (251-601)	Min. Des.	20 100	- (200)	100 200	- (300)	150 300	- (300)	200 400	- (400)	250 500	- (600)	300 600	- (1,000)	400 800	(600) (1,200)	600 1,300	(400) (700)
Bear Creek (251-706)	Min. Des.	10 50	- (50)	50 150	- (100)	100 200	- (150)	125 250	- (200)	150 300	- (400)	175 350	- (600)	150 500	- (500)	350 700	- (400)

^a Source: Malloy et al. (1992)

^b Includes 2,000 coho for sport fish harvest.

Appendix B.5. Peak indexed coho salmon escapement goals for Northeast District nonweired systems in the Kodiak Management Area, 1990.

Geographical Location	Stream		Escapement Goals ^{a,b}	
	Name	Number	Minimum	Desired
Monashka/Mill Bay	Monashka	(259-101)	20	35
	Virginia	(259-105)	30	45
	Pillar	(259-102)	30	45
	Island Lake	(259-103)	40	60

Subtotal	4 Streams		120	180
Woman's Bay^c	Buskin	(259-211)	2,000 ^d	4,210 ^d
	Sargent	(259-221)	65	100
	Russian	(259-222)	40	60
	Paramanof	(259-224)	20	30
	Salonie	(259-223)	350	500
	Cliff Point	(259-232)	10	20

Subtotal	6 Streams		2,485	4,210
Middle Bay	Short	(259-235)	10	20
	Salt	(259-233)	20	30
	American	(259-231)	300	400
	Slough	(259-234)	100	200

Subtotal	4 Streams		430	650
Kalsin Bay	Mayflower	(259-246)	30	45
	Sid Olds	(259-242)	450	675
	Kalsin	(259-243)	100	150
	Frank	(259-244)	10	20
	Myrtle	(259-245)	30	45

Subtotal	5 Streams		620	935
Outer Chiniak Bay	Rosalyn	(259-251)	600	1,200
	Twin	(259-252)	40	60
	Capelin	(259-253)	20	30
	Chiniak	(259-254)	100	150
	Chiniak Lagoon	(259-255)	10	20

Subtotal	5 Streams		770	1,460

-Continued-

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Geographical Location	Stream		Escapement Goals ^{a, b}	
	Name	Number	Minimum	Targeted
<i>Coastal Chiniak</i>	Sacramento	(259-401)	40	60
	Twin Peaks	(259-402)	10	20
	Valley	(259-403)	10	20
	Barry's	(259-405)	10	20
	Burton's	(259-404)	10	20
Subtotal	5 Streams		70	120
GRAND TOTAL	29 Streams		4,475	7,555

^a Total indexed escapement as of October and November aerial and foot surveys.

^b Source: Malloy et al. (1992). These escapement goals were developed by Kodiak Area fishery biologists, Frank VanHulle and Pete Murray with the Sport Fish Division, and Ken Manthey, Larry Malloy and Dave Prokopowich with the Commercial Fisheries Division. The basis for these goals is the annual escapement and subsequent return data derived from approximately 1970 through 1988.

^c Includes the Buskin River actual total escapement obtained by fish weir count.

^d Buskin River actual weir escapement as of 9/10, an important date for management of the freshwater sport fisheries in Buskin River.

Appendix B.6. Chinook salmon escapement goals, by week, for systems with fish weirs, Kodiak Management Area, 1990.

River	Interim Goals ^a	Interim Dates							
		5/30	6/06	6/13	6/20	6/27	7/04	7/11	7/18
Karluk (255-101)	Minimum	100	500	1,500	2,500	3,000	3,500	4,000	4,500
	Desired	300	800	2,800	4,500	6,000	7,000	7,500	8,000
Ayakulik (256-201)	Minimum	500	1,000	3,500	4,500	5,000	5,500	6,000	6,500
	Desired	1,500	3,000	5,000	6,000	7,000	8,000	9,000	10,000
Dog Salmon (257-403)	Minimum	-	-	-	20	40	80	100	110
	Desired	-	-	-	60	120	240	300	330

^a Escapement goals shown in this table are based upon historical escapement database for 10 year period 1980-1989 and the subsequent return from those escapements. As additional research is conducted on the nature of these chinook salmon populations as well as the carrying capacity/production potential for chinook salmon in these systems, adjustments in these goals may be recommended.

Appendix C.1. Preliminary forecast of the pink salmon return for the Kodiak Management Area, 1990.

Forecast Area: KODIAK
Species: Pink Salmon
Year of Return: 1990

Preliminary Forecast of the 1990 Return¹

<u>Point Estimate:</u>	<u>Total Return</u>	<u>Escapement</u> ²	<u>Harvest</u>
Natural Production	12.8 Million	3.9 Million	8.9 Million
Hatchery Production	<u>3.16 Million</u>	<u>.27 Million</u>	<u>2.89 Million</u>
Total Production	<u>15.96 Million</u>	<u>4.17 Million</u>	<u>11.79 Million</u>

Range Estimate:

Natural Production	11.8-13.8 Million	3.9 Million	7.9-9.2 Million
Hatchery Production	<u>1.25-5.78 Million</u>	<u>.27 Million</u>	<u>.98-5.51 Million</u>
Total Production	<u>13.05-19.58 Million</u>	<u>4.17 Million</u>	<u>8.88-15.41 Million</u>

¹Hatchery production forecast is for Kitoi Bay Hatchery and was prepared by Tim Joyce. See Afognak District for additional description. All numerical values represent numbers of pink salmon.

²With the exception of hatchery production, escapement values represent indexed escapement.

Forecast Methods:

The 1990 pink salmon forecast return to the Kodiak Management Area was determined as follows: A point estimate for the total management area natural return was calculated from a linear least squares regression analysis of the past 24 years pre-emergent fry data. Variables used in the analysis were the indexed live fry densities and the average combined departure from the norm of the April ambient air temperatures taken in Kodiak. The upper and lower ranges are the 80% confidence intervals.

- Continued -

Discussion of the 1990 Forecast:

Pre-emergent fry sampling this spring (1989) indicated poor to excellent over-winter survival from the excellent brood year escapement of 4.4 million pink salmon. Sampling resulted in an unweighted live fry index of 186.26 live fry/m². This fry index is below the most recent five even year return (1980-1988) of 200.1 live fry/m².

The main factors which probably contributed to the lower live fry density were the heavy rains Kodiak Island received in early November 1988 which resulted in scouring in some systems, and the record cold temperatures in mid-January, 1989 which ranged from 0°F to -20°F resulting in many spawning areas freezing.

Sampling conditions during March and April (1989) were cold, but generally very good as far as water flows were concerned. The lower than average live fry density combined with normal spring conditions are the main reasons for the lower than average forecast for the 1990 return.

At this time there is no knowledge of what effects, if any, the oil spill from the Exxon Valdez had on the early marine survival of Kodiak's migrant pink salmon fry.

Afognak District: The pre-emergent fry index for this district is above average. Apparently heavy snowfall helped to insulate stream beds and prevent serious over-winter mortality due to freezing. A total of 2.1 million pink salmon are expected to return. The desired escapement goal is 250,000 pinks leaving 1.85 million pink salmon available for harvesting.

Afognak District Supplemental Production: The Kitoi Bay Hatchery total return point estimate is 3.16 million pink salmon from a release of 400,000 emergent fry and 80.1 million reared pink fry. Approximately 270,000 pink salmon are required to meet broodstock and escapement requirements, leaving 2.89 million pinks available for harvesting.

Westside District: Overall, live fry densities for this district are some of the lowest on record in recent years. Scouring as a result of flooding conditions appeared to reduce over-winter survival in Uganik, Terror, Uyak and Zachar Rivers. Over-winter survival in Little, Browns, Baumans and Red Rivers appeared to be reduced due to the extreme cold temperatures freezing spawning locations. Because of the above mentioned conditions, only 5.6 million pinks are expected to return to this district. The desired escapement goal is 2,250,000 pinks leaving 3.35 million pink salmon available for harvesting.

Alitak District: The live fry index for this district is below average. Once again scouring and freezing were factors reducing over-winter fry survival. In addition, brood year escapements into Dog Salmon and Deadman Rivers met only minimum requirements; therefore in 1990, 900,000 pink salmon are expected to return to this

district. The desired escapement goal is 500,000 pinks leaving 400,000 pinks available for harvesting.

General District: The overall live fry density is average. Freezing temperatures and scouring appear to be the main reasons for the lower than expected live fry densities. Mild spring temperatures in this district should help with improved early marine survival. A total of 2.1 million pink salmon are expected to return. The desired escapement goal is 500,000 pinks leaving 1.6 million pinks available for harvesting.

Mainland District: Fry sampling was limited to nine streams due to high winds and the end of the helicopter contract. With the exception of Kukak River, which was sampled in a new location, over-winter fry survival appeared to be very good showing much less damage from scouring or freezing as occurred on Kodiak Island. Considering the excellent brood year pink escapements from Dakavak south to Wide Bay, 2.1 million pinks are expected to return to this district. The escapement goal is 400,000 pinks leaving 1.7 million pinks available for harvesting.

Prepared by:

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Kodiak Management Area.

Appendix C.2. Kodiak pink salmon preemergent results, 1989.

Stream	Digs	Dig Dates	Live		Dead		1989 Index Live Fry/M ²	% Digs With Fry	1987 Index	1985 Index	Range of Development	H ₂ O Temp
			Fry	Eggs	Fry	Eggs						
Perenosa-Up	20	3/30/89	247	47	158	349	66.44	55	155.21	57.03	.20-.80	1°C
Perenosa-Dn	30	3/29/89	905	2	582	2,453	162.30	70	215.56	126.25	.30-.70	1°C
Perenosa-Total	50		1,152	49	740	2,802	123.96	64	191.42	98.56	.20-.80	
Paramanoff 404	40	3/30/89	2,300	3	193	4,907	309.35	83	279.22	264.02	.10-.50	.5°C
Malina	60	3/31/89	2,303	0	735	4,000	206.50	68	405.74	255.19	.20-.90	2°C
Afogak	50	4/01/89	793	3	8	4,112	85.33	56	60.69	74.03	.50-.90	2°C
Marka	60	3/29/89	2,507	0	90	444	224.79	62	86.53	102.76	.30-.90	1°C
Danger	40	3/29/89	3,265	30	690	1,506	439.14	83	175.66	176.60	.20-.80	.5°C
"N" Seal Bay	25	3/30/89	3,390	55	526	1,423	729.53	100	413.83	458.81	.20-.80	0°C
"N" Waterfall	10	3/30/89	1,402	0	51	1,055	754.28	100	246.40	631.07	.30-.80	.5°C
Afog. Dist. Total	300		12,320	85	2,456	17,771	220.94	68	201.12	159.11	.10-.90	
Baumans	30	4/02/89	912	533	53	1,162	163.55	77	624.80	387.72	.20-.90	2°C
Terror	50	3/27/89	321	0	0	337	34.54	24	71.02	107.60	.80-.95	2.5°C
Little	40	3/28/89	233	0	49	3,556	31.34	13	230.00	43.14	.30-.70	2°C
Uganik	60	3/18/89	162	178	1	752	14.53	22	56.04	188.03	.10-.80	1°C
Zachar-Up	30	3/13/89	0	0	0	0	0	0	41.61	116.03	-	1°C
Zachar-Dn	20	3/13/89	516	0	34	232	138.80	55	20.44	135.04	.50-.70	1°C
Zachar-Total	50		516	0	34	232	55.52	22	33.14	123.63	.50-.70	
Browns	60	3/28/89	582	0	5	927	52.19	33	107.33	574.49	.40-.90	2°C
Uyak 202	60	3/12/89	705	0	2	14	63.22	30	34.25	97.11	.30-.50	3°C
Karluk	40	3/18/89	256	0	14	970	34.43	35	15.47	168.16	.20-.90	.5°C
Sturgeon	40	3/17/89	0	0	0	45	0	0	0	0	-	0°C
Red River-Up	60	3/15/89	3,494	75	1,950	4,068	313.30	82	484.47	720.92	.50-.90	1°C
Red River-Dn	60	3/15/89	4,222	25	330	1,784	378.57	98	286.66	384.49	.40-.70	1°C
Red River Total	120		7,716	100	2,280	5,852	345.93	90	385.57	552.71	.40-.90	
Westside Dist. Total	550		11,403	811	2,438	13,847	111.54	41	156.80	266.53	.10-.90	
Humpy-Up	30	4/02/89	2,006	0	223	191	359.74	73	793.01	276.57	.40-.90	2°C
Humpy-Dn	60	4/02/89	4,428	0	111	788	397.04	67	637.17	223.09	.20-.90	3°C
Humpy-Total	90		6,434	0	334	979	384.61	69	689.12	240.90	.20-.90	
Dog Salmon	60	3/16/89	1,550	0	130	288	138.98	35	10.40	446.27	.30-.80	1°C
Narrows	30	3/14/89	296	278	23	306	53.08	13	177.90	73.17	.20-.60	0°C
Deadman	60	3/16/89	1,572	0	11	40	149.92	28	93.97	380.73	.30-.95	2°C
Alitak Dist. Tot.	240		9,952	278	498	1,613	223.09	43	306.75	306.23	.20-.95	

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Stream	Digs	Dig Dates	Live		Dead		1989 Index Live Fry/M ²	% Digs With Fry	1987 Index	1985 Index	Range of Development	H ₂ O Temp
			Fry	Eggs	Fry	Eggs						
7-Rivers-Up	30	3/14/89	1,617	25	238	1,156	289.98	70	705.50	193.27	.30-.70	1°C
7-Rivers-Dn	60	3/14/89	4,479	50	331	4,151	401.62	77	746.30	727.29	.20-.70	0°C
7-Rivers-Total	90		6,096	75	569	5,307	364.41	74	732.70	549.24	.20-.70	
Kaiugnak	50	3/17/89	7,685	0	320	2,682	826.91	94	494.64	121.80	.20-.90	2°C
Barling	40	3/13/89	782	1	0	765	105.18	48	167.32	118.23	.20-.80	1°C
Kiliuda	40	3/13/89	194	0	0	4	26.09	25	16.41	97.92	.70	4°C
Saltery	50	3/21/89	106	5	0	385	11.41	18	97.27	90.28	.50-.90	2°C
Miam	60	3/21/89	73	180	0	59	6.55	22	60.61	38.74	.10-.90	2°C
Hurst	40	3/27/89	1,069	0	12	470	143.78	55	88.77	0	.30-.90	5°C
Sid Olds	50	3/09/89	1,466	0	21	138	157.74	40	301.39	356.48	.20-.95	3.5°C
American	60	3/08/89	741	0	89	206	66.44	28	277.43	84.90	.50-.80	4°C
Buskin-Up	20	3/10/89	1,683	150	193	1,734	452.73	95	522.67	534.23	.20-.90	1°C
Buskin-Dn	40	3/20/89	2,801	23	539	5,808	376.74	83	536.66	695.63	.10-.90	2°C
Buskin-Total	60		4,484	173	732	7,542	402.07	87	531.99	641.83	.10-.90	
Sheratin	50	4/03/89	1,792	0	292	1,227	192.82	38	168.61	421.90	.20-.95	5°C
"N" Beaver Pond	40	3/27/89	1,423	0	8	337	191.39	44	1.61	8.61	.60-.90	4°C
General District Total	590		24,488	434	2,035	18,785	223.30	50	308.71	263.24	.10-.95	
Missak	20	4/06/89	1,144	0	9	396	307.74	60	136.65	-	.50-.90	5.5°C
Geographic	20	4/06/89	826	0	0	41	222.19	30	0	-	.40-.80	3°C
Dakavak	30	4/06/89	606	0	100	132	108.68	40	53.08	-	.80-.90	2°C
Kashvik	40	4/05/89	588	0	172	601	79.09	30	6.32	-	.20-.80	4.5°C
Alinchak	30	4/05/89	1,250	0	162	477	224.17	53	29.95	-	.20-.80	4°C
Portage	30	4/05/89	1,693	0	97	429	303.61	70	149.21	-	.20-.90	2°C
Kanatak	30	4/05/89	421	216	4	120	75.50	40	-	-	.50-.90	1°C
Kinak	40	4/04/89	162	0	77	364	21.79	30	-	-	.50-.90	6°C
Kukak	20	4/06/89	0	0	0	1	0	0	-	-	-	5°C
Mainland Dist. Total	260		6,690	216	621	2,561	138.43	40	-	-	.20-.90	
Kodiak-Afognak Districts Total	1,680		58,163	1,608	7,427	52,016	186.26	49	237.56	252.06	.10-.95	

"N" = Non-Index Streams, results not included in District totals.

Appendix C.3. Formal forecast of the sockeye salmon return to Ayakulik River,
Kodiak Management Area, 1990.

FORECAST AREA: Kodiak, Ayakulik River

SPECIES: Sockeye Salmon

PRELIMINARY FORECAST OF THE 1990 RUN:

	<u>Point</u>	<u>Range</u>
Total Run:	1,030,000	849,000 - 1,358,000
Escapement Goal:	250,000	200,000 - 300,000
Projected Harvest:	780,000	599,000 - 1,108,000

FORECAST METHODS:

The sockeye forecast is the sum of individual point estimates for seven age classes (age 1.1, 1.2, 2.1, 1.3, 2.2, 2.3, and 3.2). The exception is that the lower 80% prediction limit of the age 1.2 estimate was substituted for the point estimate for that age class. Each age class estimate was calculated by a multiple regression equation developed from relationships between returns and escapements or siblings. The equations were developed from relationships which provided the highest correlation. The forecast range is the sum of the individual 80% prediction limits for the age class estimates.

FORECAST DISCUSSION:

The 1990 Ayakulik run is expected to be about 1,030,000 fish with 1% 3-year-olds, 47% 4-year-olds, 47% 5-year-olds, and 5% 6-year-olds.

The 1990 run forecast for 1,030,060 fish is 34% higher than the 1989 run, of 768,000 fish. Most of 1990 run should be produced from the 1984 and 1986 brood year escapements which averaged about 350,000 fish. This is about 20,000 fish above the average brood year escapements that produced the 1989 run.

This is the second year that a forecast has been made for the Ayakulik run. The 1989 run was over-forecasted by 25%.

If the 1990 run materializes as predicted commercial fishermen in the Kodiak Management Area should harvest about 780,000 Ayakulik sockeye salmon.

B. Alan Johnson
Regional Biometrician

Bruce M. Barrett
Fisheries Biologist

Appendix C.4. Formal forecast of the sockeye salmon return to Frazer Lake, Kodiak Management Area, 1990.

FORECAST AREA: Kodiak, Frazer Lake

SPECIES: Sockeye Salmon

PRELIMINARY FORECAST OF THE 1990 RUN:

	<u>Point</u>	<u>Range</u>
Total Run:	564,000	288,000 - 862,000
Escapement Goal:	170,000	140,000 - 200,000
Projected Harvest:	394,000	118,000 - 692,000

FORECAST METHODS:

The 1990 Frazer Lake forecast is the sum of individual predications for six age classes (age 1.1, 1.2, 1.3, 2.1, 2.2 and 2.3). Except for the age 1.2 estimate each age class predication was calculated by a multiple regression equation developed from relationships between returns and escapements, siblings, or smolt. Each equation was developed to maximize the coefficient of determination, and each estimate was interpreted for reasonableness. As an age class predication was made it was entered into the data base used to predict other age classes. The age 1.2 predication was estimated from the relationship of age 1.1 and 1.2 siblings for the 1979 brood year.

FORECAST DISCUSSION:

The 1990 Frazer Lake run is expected to be about 564,000 fish with 34% 4-year-olds, 26% 5-year-olds, and 40% 6-year-olds. The parent escapement for the 4-year-olds is 127,000 fish, for the 5-year-olds 485,835 fish, and for the 6-year-olds 53,524 fish. The 4-year-olds prediction is a conservative estimate and is based on the ratio of age 1.1 and age 1.2 siblings for the 1979 brood year of 1:2.7. This is the lowest age 1.1 to age 1.2 sibling ratio since 1966, the earliest brood year in our data base. This return ratio was chosen instead of the mode or mean return ratio because the age 1.1 return for 1989 was probably overestimated since the run age composition was based entirely on escapement samples and for the first time the entire catch was taken with gill nets which tend to be size selective against age 1.1 fish.

The 1990 run forecast is 47% lower than the 1989 run but 24% higher than the 1988 run. Most of the estimated 1990 run is for fish produced from the 1984 and 1986 brood year escapements which average about 90,000 fish. This is nearly the same average escapement level that produced the relatively strong 1988 and 1989 runs.

- Continued -

This is the fourth year that a forecast has been made for the Frazer Lake run. The forecast error for the last three years is high, averaging 70%. The 1987 run was over-forecasted, while the 1988 and 1989 runs were under-forecasted.

If the 1990 run materializes as predicted, purse seine and set gill net fishermen can expect to harvest about 394,000 Frazer Lake sockeye salmon in the Alitak Bay District.

Appendix C.5. Formal forecast of the early run sockeye salmon return to Upper Station Lake, Kodiak Management Area, 1990.

FORECAST AREA: Kodiak, Upper Station Lakes

SPECIES: Sockeye Salmon, Early Run

PRELIMINARY FORECAST OF THE 1990 RUN:

	<u>Point</u>	<u>Range</u>
Total Run:	70,000	12,000 - 137,000
Escapement Goal:	50,000	50,000 - 75,000
Projected Harvest:	20,000	0 - 87,000

FORECAST METHODS:

The 1990 Upper Station forecast is the sum of individual predictions for four age classes (age 1.2, 1.3, 2.2, and 2.3). Except for age 1.2 fish every age class estimate was determined through a multiple regression equation developed from relationships of return to escapement or siblings. Each regression equation was developed to maximize the coefficient of determination and all estimates were interpreted for reasonableness. The age 1.2 predication was based on the ratio of age 1.1 and 1.2 siblings for the 1983 brood year. This relationship was chosen because the number of age 1.1 fish in 1989 most closely matched the number of age 1.1 fish for the 1983 brood year and no reasonable correlation was found in the available data sets to predict age 1.2 returns.

FORECAST DISCUSSION:

The Upper Station early run is expected to be about 70,000 sockeye salmon with 36% 4-year-old fish from the 1986 parent escapement of 101,000 fish, 40% 5-year-old fish from the 1985 parent escapement of 27,000 fish, and 24% 6-year-old fish from the 1984 parent escapement of 97,000 fish. It is reasonably probable that the 4-year-olds are underestimated since all of these are age 1.2 fish. The age 1.2 fish were estimated using the 1:4.5 ratio of age 1.1 to 1.2 fish from the 1983 brood year which is the lowest age 1.1 to age 1.2 ratio of record from 1969-85. Therefore it is likely that the age 1.2 prediction of 25,600 fish may be an under estimate.

The 1989 early run was approximately 124,000 fish which is within 8% of the preseason forecast. The 1989 escapement was about 65,000 fish. The 1990 run is projected to be about 45% fewer fish than the 1988 run.

If the 1990 run forecast is correct purse seine and gill net fishermen should harvest about 20,000 Upper Station early run fish in the Alitak Bay District by 15 July 1990.

Appendix C.6. Formal forecast of the late run sockeye salmon return to Upper Station Lake, Kodiak Management Area, 1990.

FORECAST AREA: Kodiak, Upper Station Lakes

SPECIES: Sockeye Salmon, Late Run

PRELIMINARY FORECAST OF THE 1990 RUN:

	<u>Point</u>	<u>Range</u>
Total Run:	386,000	98,000 - 777,000
Escapement Goal:	175,000	150,000 - 200,000
Projected Harvest:	211,000	0 - 602,000

FORECAST METHODS:

The 1990 late run to Upper Station Lakes is the sum of five individual age class predications (age 0.2, 0.3, 1.2, 2.3, 2.2). Each age class prediction was determined through a multiple regression equation based on relationships of returns to escapements or siblings. Each equation was developed to maximize the coefficient of determination, and each estimate was interpreted for reasonableness. Individual age classes were estimated using existing count data except for one case in which a forecasted value was used to forecast another age class.

FORECAST DISCUSSION:

The 1990 late sockeye run to Upper Station Lakes is expected to be about 386,000 fish with 11% 3-year-olds, 32% 4-year-olds, and 57% 5-year-olds.

The late sockeye run to Upper Station Lakes in 1989 was approximately 707,000 fish with a catch of 485,000 fish and an escapement of 222,000 fish. The 1990 run is forecasted to be 45% fewer fish than the 1989 run.

In 1990 purse seine and gill net fishermen should harvest about 211,000 Upper Station late run fish in the Alitak Bay District if the forecast is correct.

Appendix D.1. Commercial salmon harvest by day, all gear combined, Kodiak Management Area, 1990.

Date	Permits	Lndgs	Chinook		Sockeye		Coho		Pink		Chum		Total	
			#	Lbs	#	Lbs	#	Lbs	#	Lbs	#	Lbs	#	Lbs
05/30	*	*	0	0	7	38	0	0	0	0	0	0	7	38
06/01	*	*	0	0	12	64	0	0	0	0	0	0	12	64
06/03	*	*	0	0	29	151	0	0	0	0	0	0	29	151
06/05	*	*	0	0	54	275	0	0	0	0	0	0	54	275
06/06	*	*	0	0	50	282	0	0	0	0	0	0	50	282
06/07	*	*	0	0	88	441	0	0	0	0	1	6	89	447
06/09	170	172	333	5,566	44,595	217,491	4	32	27	92	397	3,276	45,356	226,457
06/10	219	243	354	6,121	75,978	366,363	5	39	44	149	665	5,938	77,046	378,610
06/11	112	112	669	9,472	38,401	180,537	9	81	8	18	796	4,506	39,883	194,614
06/12	141	142	443	8,068	65,128	314,429	11	112	1	3	724	5,473	66,307	328,085
06/13	133	148	273	5,397	65,646	316,686	2,553	12,267	14	29	458	4,121	68,944	338,500
06/14	185	197	102	1,942	60,999	289,134	0	0	38	128	865	7,989	62,004	299,193
06/15	237	268	130	1,665	75,584	353,068	11	73	286	875	2,543	21,759	78,554	377,440
06/16	27	29	40	675	14,403	69,133	0	0	18	58	211	1,841	14,672	71,707
06/17	132	138	74	1,203	89,890	421,275	2	6	91	183	615	5,770	90,672	428,437
06/18	154	159	164	3,186	102,659	474,861	0	0	150	348	1,065	9,785	104,038	488,180
06/19	150	153	180	3,313	66,080	311,382	1	4	199	515	1,111	9,558	67,571	324,772
06/20	166	171	131	1,959	29,900	145,271	1	13	340	1,083	2,969	24,489	33,341	172,815
06/21	232	254	418	7,328	56,986	266,028	1	11	1,091	2,811	5,691	46,903	64,187	323,081
06/22	166	171	446	7,286	47,035	214,405	1	7	506	1,495	2,806	22,582	50,794	245,775
06/23	162	167	355	7,035	56,591	263,377	1	10	65	165	874	7,677	57,886	278,264
06/24	200	218	368	5,768	81,418	378,663	0	0	90	246	1,485	13,737	83,361	398,414
06/25	174	182	248	3,838	81,251	373,814	3	35	82	214	1,166	10,729	82,750	388,630
06/26	192	208	144	2,187	106,837	492,550	1	15	100	247	1,430	13,240	108,512	508,239
06/27	205	232	317	3,119	106,383	487,950	2	20	145	388	2,116	19,685	108,963	511,162
06/28	102	119	37	597	44,461	206,312	0	0	18	53	1,259	11,829	45,775	218,791
06/29	97	113	58	1,001	33,464	152,896	9	73	21	48	998	9,899	34,550	163,917
06/30	86	102	15	231	39,377	183,416	7	54	0	0	790	7,265	40,189	190,966
07/01	96	104	34	614	61,620	288,142	6	52	10	38	1,668	16,408	63,338	305,254
07/02	115	130	21	371	69,977	324,387	2	14	15	41	1,577	14,379	71,592	339,192
07/03	155	167	75	1,074	50,373	235,159	182	1,172	4,107	13,109	1,555	13,435	56,292	263,949
07/04	190	206	194	2,102	65,751	319,003	71	471	4,617	14,684	2,202	19,038	72,835	355,298
07/05	185	202	194	2,010	73,394	365,348	261	2,127	18,717	58,591	3,808	33,543	96,374	461,619
07/06	296	305	337	3,590	92,446	487,289	721	5,264	18,481	60,885	10,180	82,123	122,165	639,151
07/07	333	392	473	4,823	90,697	480,866	1,456	9,714	20,659	67,869	18,044	140,372	131,329	703,644
07/08	347	382	636	5,197	71,886	377,273	1,770	12,230	13,517	44,008	17,407	131,782	105,216	570,490
07/09	114	124	46	680	30,978	151,199	40	255	1,221	3,577	3,167	21,791	35,452	177,502
07/10	157	160	117	880	49,510	249,307	321	2,339	3,468	10,992	3,802	32,373	57,218	295,891
07/11	192	204	357	3,721	54,083	285,130	1,077	7,964	11,388	35,661	7,488	61,080	74,393	393,556
07/12	185	195	233	2,543	57,680	305,560	138	954	2,267	6,773	4,599	37,239	64,917	353,069
07/13	255	260	236	2,414	52,927	282,398	134	964	22,040	73,634	9,243	77,127	84,580	436,537
07/14	332	363	405	4,187	86,689	468,623	2,672	17,139	38,463	123,762	25,986	203,882	154,215	817,593
07/15	352	405	472	4,848	101,679	565,736	3,672	24,166	43,458	138,145	28,881	229,659	178,162	962,554
07/16	356	393	1,299	9,740	101,142	550,480	2,478	17,190	36,129	113,868	19,291	153,571	160,339	844,849
07/17	114	119	497	3,141	52,359	285,975	1,093	7,598	12,845	39,673	6,128	50,190	72,922	386,577
07/18	105	111	339	2,401	43,582	241,888	867	5,961	7,185	21,143	3,737	28,898	55,710	300,291
07/19	97	103	86	1,106	51,751	285,185	979	6,664	10,642	31,725	4,564	36,670	68,022	361,350
07/20	316	328	170	1,641	87,494	483,489	3,591	24,339	49,793	159,787	10,767	85,377	151,815	754,633
07/21	368	417	445	4,990	90,486	511,307	5,995	39,915	88,725	280,821	20,689	164,113	206,340	1,001,146
07/22	371	416	322	3,682	76,207	424,410	7,543	52,227	89,168	279,806	16,068	121,399	189,308	881,524
07/23	369	410	240	2,740	68,373	368,747	4,099	27,936	94,447	304,522	14,216	109,971	181,375	813,916

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Appendix D.1. (page 2 of 3)

Date	Permits	Lndgs	Chinook		Sockeye		Coho		Pink		Chum		Total	
			#	Lbs	#	Lbs	#	Lbs	#	Lbs	#	Lbs	#	Lbs
07/24	37	41	119	634	7,304	43,646	1,268	8,586	16,399	49,499	3,135	23,673	28,225	126,038
07/25	24	25	29	379	4,524	28,297	640	4,156	7,238	22,205	1,963	14,174	14,394	69,211
07/26	15	15	1	18	6,739	42,466	553	4,166	9,454	28,443	2,395	17,157	19,142	92,250
07/27	306	316	242	2,782	47,826	258,693	5,162	37,382	132,518	421,478	14,048	106,314	199,796	826,649
07/28	376	462	363	4,130	97,279	519,571	9,897	70,188	274,279	869,776	31,196	239,026	413,014	1,702,691
07/29	341	393	332	3,783	63,092	347,945	6,920	53,402	259,775	814,081	21,306	162,213	351,425	1,381,424
07/30	398	470	476	6,175	57,503	313,214	9,949	75,055	269,045	845,716	21,380	171,320	358,353	1,411,480
07/31	105	112	80	988	31,381	174,705	2,251	17,539	70,961	227,383	3,073	25,609	107,746	446,224
08/01	91	97	8	117	37,758	214,849	197	1,702	11,065	36,633	525	4,234	49,553	257,535
08/02	254	263	77	1,307	50,310	282,526	1,780	14,283	146,048	466,516	15,137	120,510	213,352	885,142
08/03	361	401	449	5,778	50,963	280,596	5,899	45,855	320,867	1,014,112	20,958	155,685	399,136	1,502,026
08/04	373	410	678	7,755	44,097	242,514	6,642	52,423	329,500	1,013,888	14,006	104,854	394,923	1,421,434
08/05	397	439	626	6,588	49,836	272,694	9,518	77,631	355,296	1,107,412	20,962	161,835	436,238	1,626,160
08/06	239	254	239	2,383	41,110	227,791	3,747	30,432	202,736	627,529	10,803	78,975	258,635	967,110
08/07	172	175	96	1,182	31,968	163,811	2,633	21,178	179,669	558,677	5,314	38,945	219,680	783,793
08/08	143	149	87	1,059	21,554	115,440	1,551	12,220	143,017	443,170	4,293	29,158	170,502	601,047
08/09	309	319	78	1,074	47,869	262,708	2,416	20,036	157,868	511,825	10,944	83,859	219,175	879,502
08/10	377	414	339	4,319	66,685	364,235	5,629	48,263	247,219	798,054	17,056	124,808	336,928	1,339,679
08/11	315	340	166	1,947	59,825	324,846	6,152	52,396	158,417	519,255	13,478	97,507	238,038	995,951
08/12	251	281	281	3,037	60,994	329,477	5,855	48,935	181,070	568,157	10,297	75,675	258,497	1,025,281
08/13	279	317	148	1,849	69,136	380,403	6,398	54,884	191,043	612,804	9,948	75,369	276,673	1,125,309
08/14	98	103	286	2,211	19,316	104,026	4,253	35,548	80,364	255,672	5,816	41,353	110,035	438,810
08/15	88	96	134	918	29,474	155,802	3,075	25,948	53,028	172,198	2,639	17,456	88,350	372,322
08/16	266	274	85	1,691	122,161	678,198	5,685	50,663	103,895	336,658	5,539	38,936	237,365	1,106,146
08/17	342	406	106	1,281	214,758	1,158,785	12,524	108,645	309,720	984,025	7,304	46,752	544,412	2,299,488
08/18	378	447	135	2,343	196,970	1,073,482	13,991	122,291	326,490	1,048,328	5,904	39,574	543,490	2,286,018
08/19	238	272	73	914	64,637	357,157	7,593	66,205	166,125	527,682	3,628	23,743	242,056	975,701
08/20	286	333	49	594	108,027	590,471	8,487	69,788	154,911	504,315	2,829	17,394	274,303	1,182,562
08/21	222	254	27	310	71,556	388,951	6,105	55,252	115,159	373,780	1,486	9,331	194,333	827,624
08/22	229	265	59	851	71,639	394,460	6,987	59,748	154,115	496,649	2,028	12,808	234,828	964,516
08/23	17	17	27	356	11,098	62,661	1,751	13,218	27,250	85,992	332	1,971	40,458	164,198
08/24	*	*	0	0	863	4,309	51	487	1,252	4,422	7	38	2,173	9,256
08/25	201	209	26	379	64,922	352,214	4,214	39,435	49,348	163,192	4,254	28,155	122,764	583,375
08/26	239	278	44	629	68,659	374,896	8,427	76,622	58,133	192,516	7,024	49,729	142,287	694,392
08/27	236	269	48	665	59,554	330,401	11,550	101,395	62,781	207,268	2,361	15,504	136,294	655,233
08/28	152	178	10	138	32,696	180,107	6,184	55,729	18,092	61,242	802	5,075	57,784	302,291
08/29	130	146	8	135	29,693	164,502	4,904	44,054	9,921	33,910	1,492	10,023	46,018	252,634
08/30	157	190	64	846	37,593	208,004	6,933	63,724	13,434	43,977	958	5,900	58,982	322,451
08/31	130	144	31	282	22,893	127,021	5,119	46,203	7,093	23,641	1,686	13,058	36,822	210,205
09/01	108	132	39	632	16,863	92,976	4,482	40,130	6,212	20,427	1,006	6,298	28,602	160,463
09/02	104	119	22	287	17,032	93,980	5,161	47,681	4,374	14,208	359	2,255	26,948	158,411
09/03	32	37	15	243	3,832	19,947	4,043	32,619	1,421	4,391	148	955	9,459	58,155
09/04	23	24	1	15	3,556	19,681	1,615	14,659	417	1,295	98	644	5,687	36,294
09/05	21	29	1	7	4,763	25,842	988	9,860	61	174	220	1,397	6,033	37,280
09/06	37	38	1	8	6,883	38,945	676	6,087	497	1,707	112	741	8,169	47,488
09/07	73	80	2	25	12,308	67,295	3,125	28,913	626	2,234	239	1,504	16,300	99,971
09/08	72	78	13	176	11,509	62,656	2,821	26,300	474	1,835	384	2,641	15,201	93,608
09/09	65	68	16	161	5,358	28,492	2,353	22,196	151	465	404	2,697	8,282	54,011
09/10	59	63	5	63	7,185	39,489	5,474	50,856	105	332	155	1,000	12,924	91,740
09/11	40	41	14	171	4,179	23,005	4,116	33,784	77	223	46	266	8,432	57,449
09/12	23	25	2	18	3,023	16,070	1,165	10,389	12	44	31	225	4,233	26,746

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Appendix D.1. (page 3 of 3)

Date	Permits	Ldgs	Chinook		Sockeye		Coho		Pink		Chum		Total	
			#	Lbs	#	Lbs	#	Lbs	#	Lbs	#	Lbs	#	Lbs
09/13	25	26	4	46	3,913	20,457	1,620	14,726	49	147	29	181	5,615	35,557
09/14	17	20	5	61	2,378	13,052	498	4,640	28	89	68	479	2,977	18,321
09/15	9	9	8	74	1,700	8,786	103	778	10	30	9	49	1,830	9,717
09/16	8	9	3	26	2,827	14,234	260	2,514	0	0	15	89	3,105	16,863
09/17	6	6	0	0	343	1,923	211	1,803	0	0	4	29	558	3,755
09/18	*	*	0	0	238	1,265	14	94	0	0	3	23	255	1,382
09/19	*	*	0	0	75	455	158	1,420	0	0	0	0	233	1,875
09/20	*	*	0	0	948	5,144	108	949	0	0	0	0	1,056	6,093
09/25	*	*	0	0	475	2,586	28	305	0	0	0	0	503	2,891
09/26	*	*	2	24	299	1,469	0	0	0	0	2	15	303	1,508
09/28	*	*	0	0	65	372	39	393	7	20	3	27	114	812
10/10	*	*	0	0	0	0	81	760	0	0	0	0	81	760
Grand Total	560	19,991	18,806	229,316	5,248,404	27,311,188	293,819	2,417,040	5,983,812	19,011,963	577,743	4,441,692	12,122,584	53,411,199
Avg. Wt.				12.19		5.20		8.23		3.18		7.69		

Appendix D.2. Commercial salmon harvest, by statistical week and gear type, Kodiak Management Area, 1990.

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Gear	Stat Week/ Week End	Permits	Ldgs	Chinook			Sockeye			Coho			Pink			Chums		
				#	Lbs	Avg.	#	Lbs	Avg.	#	Lbs	Avg.	#	Lbs	Avg.	#	Lbs	Avg.
Purse Seine	23 06/09	81	82	313	5,171	16.5	24,614	118,668	4.8	2	18	9.0	16	54	3.4	218	1,752	8.0
	24 06/16	217	743	1,902	31,984	16.8	313,699	1,486,642	4.7	2,584	12,526	4.8	303	854	2.8	4,749	39,352	8.3
	25 06/23	273	1,020	1,723	30,787	17.9	407,332	1,884,756	4.6	5	27	5.4	2,071	5,204	2.5	11,485	99,624	8.7
	26 06/30	229	718	1,127	15,434	13.7	328,183	1,500,174	4.6	8	85	10.6	454	1,190	2.6	5,554	51,423	9.3
	27 07/07	303	905	1,201	12,948	10.8	378,322	1,885,183	5.0	2,610	18,219	7.0	59,149	187,187	3.2	26,866	224,970	8.4
	28 07/14	325	1,104	1,905	18,341	9.6	333,817	1,771,566	5.3	5,995	40,781	6.8	75,748	236,473	3.1	60,279	478,620	7.9
	29 07/21	340	1,284	3,193	26,617	8.3	458,712	2,543,039	5.5	17,414	116,512	6.7	199,822	608,534	3.0	81,372	654,443	8.0
	30 07/28	343	1,021	1,190	12,890	10.8	211,955	1,177,275	5.6	26,558	184,736	7.0	507,116	1,559,996	3.1	68,729	527,407	7.7
	31 08/04	347	1,286	1,953	23,937	12.3	232,482	1,279,811	5.5	29,481	227,612	7.7	1,292,812	4,017,625	3.1	81,053	634,931	7.8
	32 08/11	348	1,433	1,474	16,688	11.3	224,663	1,197,875	5.3	27,951	231,701	8.3	1,344,627	4,224,043	3.1	73,586	552,638	7.5
	33 08/18	334	1,248	1,117	12,771	11.4	559,818	3,016,629	5.4	43,563	377,079	8.7	1,146,371	3,630,043	3.2	37,700	269,960	7.2
	34 08/25	296	765	230	3,072	13.4	235,626	1,267,132	5.4	26,787	232,126	8.7	581,050	1,847,816	3.2	8,370	53,650	6.4
	35 09/01	228	591	189	2,701	14.3	123,241	662,314	5.4	29,789	271,119	9.1	134,682	435,883	3.2	10,841	76,986	7.1
	36 09/08	82	122	24	428	17.8	21,075	111,536	5.3	13,136	116,964	8.9	5,839	18,283	3.1	453	3,213	7.1
	37 09/15	55	77	7	111	15.9	12,933	67,468	5.2	12,331	109,961	8.9	324	948	2.9	381	2,634	6.9
	38 09/22	7	8	0	0	0.0	2,277	11,106	4.9	442	3,990	9.0	0	0	0.0	0	0	0.0
	39 09/29	3	3	2	24	12.0	839	4,427	5.3	67	698	10.4	7	20	2.9	5	42	8.4
Total		354	12,410	17,550	213,904	12.2	3,869,588	19,985,601	5.2	238,723	1,944,154	8.1	5,350,391	16,774,153	3.1	471,641	3,671,645	7.8
Beach Seine	23 06/09	1	1	0	0	0.0	32	186	5.8	0	0	0.0	0	0	0.0	0	0	0.0
	24 06/16	7	11	0	0	0.0	441	2,118	5.3	0	0	0.0	0	0	0.0	1	7	7.0
	25 06/23	4	7	0	0	0.0	320	1,289	4.0	0	0	0.0	0	0	0.0	8	58	7.3
	26 06/30	2	3	0	0	0.0	116	372	3.2	0	0	0.0	0	0	0.0	0	0	0.0
	27 07/07	14	21	3	72	24.0	1,771	8,974	5.1	2	30	15.0	886	3,020	3.4	546	4,980	9.1
	28 07/14	13	31	5	83	16.6	610	3,085	5.1	0	0	0.0	2,463	8,358	3.4	766	7,565	9.9
	29 07/21	16	35	3	23	7.7	406	2,046	5.0	1	8	8.0	4,812	16,993	3.5	1,398	12,508	8.9
	30 07/28	19	44	6	110	18.3	833	3,512	4.2	1	8	8.0	13,146	41,483	3.2	569	4,911	8.6
	31 08/04	17	48	6	126	21.0	472	2,422	5.1	4	39	9.8	17,512	56,407	3.2	2,983	23,446	7.9
	32 08/11	18	48	12	189	15.8	270	1,015	3.8	25	193	7.7	24,889	78,070	3.1	1,398	10,255	7.3
	33 08/18	11	27	3	41	13.7	782	4,252	5.4	69	515	7.5	10,762	34,834	3.2	2,155	16,093	7.5
	34 08/25	13	38	0	0	0.0	2,136	11,529	5.4	329	2,730	8.3	8,934	29,704	3.3	1,260	8,747	6.9
	35 09/01	6	15	0	0	0.0	710	3,984	5.6	226	2,056	9.1	784	2,720	3.5	120	803	6.7
	36 09/08	2	2	0	0	0.0	0	0	0.0	129	1,337	10.4	0	0	0.0	0	0	0.0
	37 09/15	4	6	0	0	0.0	35	173	4.9	693	6,465	9.3	0	0	0.0	1	4	4.0
	38 09/22	1	1	0	0	0.0	0	0	0.0	146	1,315	9.0	0	0	0.0	0	0	0.0
	41 10/13	1	1	0	0	0.0	0	0	0.0	81	760	9.4	0	0	0.0	0	0	0.0
Total		21	339	38	644	16.9	8,934	45,157	5.1	1,706	15,456	9.1	84,188	271,589	3.2	11,205	89,377	8.0
Set Gillnet	23 06/09	89	90	20	395	19.8	19,999	98,919	4.9	2	14	7.0	11	38	3.5	179	1,524	8.5
	24 06/16	132	383	109	1,356	12.4	81,762	399,203	4.9	5	46	9.2	106	406	3.8	1,512	12,268	8.1
	25 06/23	117	181	45	523	11.6	41,154	208,962	5.1	2	24	12.0	371	1,396	3.8	3,638	27,082	7.4
	26 06/30	82	451	60	1,307	21.8	164,847	774,806	4.7	14	112	8.0	2	6	3.0	3,688	34,941	9.5
	27 07/07	152	579	124	1,564	12.6	124,134	605,892	4.9	125	845	6.8	7,273	27,348	3.8	11,681	89,740	7.7
	28 07/14	155	553	120	1,198	10.0	69,326	344,839	5.0	157	1,064	6.8	14,153	53,576	3.8	10,647	79,089	7.4
	29 07/21	156	557	112	1,227	11.0	69,375	378,975	5.5	1,260	9,313	7.4	44,143	159,635	3.6	11,287	81,527	7.2
	30 07/28	161	620	120	1,365	11.4	95,464	505,043	5.3	2,603	19,897	7.6	103,241	374,250	3.6	13,723	99,396	7.2
	31 08/04	163	813	141	1,840	13.0	102,150	574,116	5.6	4,113	32,310	7.9	96,222	341,913	3.6	12,287	85,640	7.0
	32 08/11	155	609	145	1,675	11.6	93,914	532,635	5.7	3,670	30,262	8.2	74,706	263,809	3.5	7,866	52,194	6.6
	33 08/18	152	649	55	518	9.4	152,209	859,292	5.6	8,149	69,320	8.5	88,477	312,965	3.5	7,592	49,062	6.5
	34 08/25	138	550	31	332	10.7	154,980	871,562	5.6	8,072	69,277	8.6	78,176	278,512	3.6	4,934	31,043	6.3
	35 09/01	124	732	55	626	11.4	144,000	811,609	5.6	17,586	154,710	8.8	40,213	144,424	3.6	4,372	27,822	6.4
	36 09/08	86	281	31	333	10.7	38,808	216,810	5.6	5,164	47,818	9.3	2,031	7,561	3.7	1,107	6,924	6.3
	37 09/15	52	169	47	483	10.3	14,768	81,710	5.5	2,305	20,943	9.1	108	382	3.5	360	2,259	6.3
	38 09/22	5	12	3	26	8.7	2,154	11,915	5.5	163	1,475	9.0	0	0	0.0	22	141	6.4
Total		185	7,225	1,218	14,768	12.1	1,369,044	7,276,288	5.3	53,390	457,430	8.6	549,233	1,966,221	3.6	94,895	680,652	7.2

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Appendix D.2. (page 2 of 2)

Gear	Stat Week/ Week End	Permits	Lndgs	Chinook			Sockeye			Coho			Pink			Chum		
				#	Lbs	Avg.	#	Lbs	Avg.	#	Lbs	Avg.	#	Lbs	Avg.	#	Lbs	Avg.
Test Fish	22 06/02	1	2	0	0	0.0	19	102	5.4	0	0	0.0	0	0	0.0	0	0	0.0
	23 06/09	1	3	0	0	0.0	171	867	5.1	0	0	0.0	0	0	0.0	1	6	6.0
	24 06/16	1	2	0	0	0.0	237	1,187	5.0	0	0	0.0	0	0	0.0	0	0	0.0
	25 06/23	1	5	0	0	0.0	335	1,592	4.8	0	0	0.0	0	0	0.0	0	0	0.0
	26 06/30	1	2	0	0	0.0	45	249	5.5	0	0	0.0	0	0	0.0	0	0	0.0
	27 07/07	1	3	0	0	0.0	31	145	4.7	0	0	0.0	0	0	0.0	1	12	12.0
	Total	1	17	0	0	0.0	838	4,142	4.9	0	0	0.0	0	0	0.0	2	18	9.0
All Gear Total		560	19,991	18,806	229,316	12.2	5,248,404	27,311,188	5.2	293,819	2,417,040	8.2	5,983,812	19,011,963	3.2	577,743	4,441,692	7.7

Appendix D.3. Commercial purse seine caught salmon harvest by species and statistical week, Kodiak Management Area, 1990.

Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SOCKEYE			COHO			PINK			CHUM			
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	
Purse Seine																		
S.W. Afognak & Raspberry (Combined) (251-10, 20)	24	06/16	4	4	40	10.0	1,586	6,843	4.3	0	0	0.0	66	189	2.9	219	2,182	10.0
	25	06/23	5	1	7	7.0	3,947	16,825	4.3	0	0	0.0	173	492	2.8	467	3,565	7.6
	27	07/07	25	38	519	13.7	6,522	35,894	5.5	283	2,214	7.8	8,472	24,788	2.9	1,564	12,024	7.7
	28	07/14	27	45	634	14.1	4,476	23,226	5.2	775	5,094	6.6	8,522	26,961	3.2	1,278	10,156	7.9
	29	07/21	58	128	1,539	12.0	8,177	45,934	5.6	1,032	7,320	7.1	17,071	51,826	3.0	2,037	16,499	8.1
	30	07/28	76	110	1,551	14.1	6,404	35,389	5.5	2,693	19,559	7.3	70,782	216,168	3.1	2,403	17,923	7.5
	31	08/04	100	173	2,340	13.5	5,622	30,345	5.4	5,027	38,558	7.7	117,713	369,566	3.1	3,734	29,818	8.0
	32	08/11	51	126	1,312	10.4	5,097	28,467	5.6	3,876	33,733	8.7	83,743	258,583	3.1	2,647	17,945	6.8
	33	08/18	119	77	1,098	14.3	58,637	318,647	5.4	7,753	67,187	8.7	135,628	423,294	3.1	3,039	19,350	6.4
	34	08/25	104	41	609	14.9	30,617	170,067	5.6	5,634	47,150	8.4	110,453	345,011	3.1	1,138	7,628	6.7
	35	09/01	41	7	130	18.6	11,023	59,535	5.4	2,273	21,712	9.6	6,949	23,300	3.4	164	984	6.0
	36	09/08	11	0	0	0.0	4,000	21,815	5.5	1,574	15,027	9.5	1,999	6,043	3.0	64	379	5.9
Total		621	750	9,779	13.0	146,108	792,987	5.4	30,920	257,554	8.3	561,571	1,746,241	3.1	18,754	138,453	7.4	
N.W. Afognak (251-30, 40, 50)	24	06/16	*	0	0	0.0	2,339	9,542	4.1	0	0	0.0	0	0	0.0	0	0	0.0
	25	06/23	*	0	0	0.0	2,812	11,032	3.9	0	0	0.0	0	0	0.0	0	0	0.0
	27	07/07	6	3	26	8.7	913	3,942	4.3	180	1,153	6.4	4,338	13,880	3.2	191	1,568	8.2
	28	07/14	7	7	46	6.6	2,233	8,624	3.9	3	16	5.3	233	754	3.2	58	516	8.9
	29	07/21	9	1	27	27.0	2,044	10,989	5.4	41	279	6.8	1,581	4,700	3.0	123	900	7.3
	30	07/28	*	1	7	7.0	144	709	4.9	219	1,596	7.3	1,899	5,690	3.0	140	1,110	7.9
	31	08/04	23	30	380	12.7	1,855	9,898	5.3	2,136	16,505	7.7	34,512	108,804	3.2	1,787	14,719	8.2
	32	08/11	*	0	0	0.0	13	68	5.2	175	1,415	8.1	6,724	23,016	3.4	6	55	9.2
	33	08/18	15	5	35	7.0	10,557	58,884	5.6	1,555	12,959	8.3	29,586	91,569	3.1	302	2,096	6.9
	34	08/25	12	3	76	25.3	1,743	9,135	5.2	494	4,907	9.9	9,147	27,286	3.0	83	566	6.8
	35	09/01	8	1	17	17.0	889	5,908	6.6	1,562	13,996	9.0	2,701	8,217	3.0	18	92	5.1
	36	09/08	10	0	0	0.0	326	1,991	6.1	2,382	22,438	9.4	233	750	3.2	1	10	10.0
Total		98	51	614	12.0	25,868	130,722	5.1	8,747	75,264	8.6	90,954	284,666	3.1	2,709	21,632	8.0	
Shuyak (251-60, 70, 81)	27	07/07	*	0	0	0.0	51	280	5.5	188	1,360	7.2	15,511	44,903	2.9	187	1,242	6.6
	30	07/28	*	0	0	0.0	35	216	6.2	17	140	8.2	503	1,425	2.8	42	235	5.6
	31	08/04	6	6	78	13.0	367	1,891	5.2	221	2,037	9.2	10,449	32,702	3.1	317	2,631	8.3
	32	08/11	8	1	14	14.0	70	347	5.0	204	1,533	7.5	41,129	129,633	3.2	35	280	8.0
	33	08/18	8	4	58	14.5	466	2,463	5.3	859	6,725	7.8	33,454	96,788	2.9	469	3,536	7.5
	34	08/25	*	0	0	0.0	0	0	0.0	500	4,500	9.0	0	0	0.0	0	0	0.0
	37	09/15	12	0	0	0.0	88	504	5.7	5,309	42,355	8.0	0	0	0.0	0	0	0.0
Total		39	11	150	13.6	1,077	5,701	5.3	7,298	58,650	8.0	101,046	305,451	3.0	1,050	7,924	7.5	
Perenosa (251-82, 83)	29	07/21	*	0	0	0.0	24	128	5.3	16	145	9.1	75	205	2.7	9	60	6.7
	30	07/28	4	0	0	0.0	74	368	5.0	14	99	7.1	452	1,276	2.8	47	284	6.0
	31	08/04	*	0	0	0.0	4	15	3.8	1	6	6.0	716	2,033	2.8	0	0	0.0
	32	08/11	15	0	0	0.0	83	411	5.0	521	4,677	9.0	21,642	63,951	3.0	49	281	5.7
	33	08/18	19	0	0	0.0	153	821	5.4	2,215	19,273	8.7	31,888	100,706	3.2	29	111	3.8
	34	08/25	5	0	0	0.0	75	343	4.6	240	2,141	8.9	7,028	21,773	3.1	0	0	0.0
	36	09/08	*	0	0	0.0	22	88	4.0	120	1,273	10.6	18	40	2.2	0	0	0.0
	37	09/15	*	0	0	0.0	0	0	0.0	1,155	10,040	8.7	0	0	0.0	0	0	0.0
Total		48	0	0	0.0	435	2,174	5.0	4,282	37,654	8.8	61,819	189,984	3.1	134	736	5.5	
N.E. Afognak (251-90, 252-10, 20)	23	06/09	*	14	281	20.1	170	790	4.6	0	0	0.0	0	0	0.0	0	0	0.0
	24	06/16	*	0	0	0.0	31	154	5.0	0	0	0.0	0	0	0.0	0	0	0.0
	25	06/23	*	0	0	0.0	68	245	3.6	0	0	0.0	1	1	1.0	24	219	9.1
	29	07/21	*	0	0	0.0	4	28	7.0	8	52	6.5	5	12	2.4	11	85	7.7
	31	08/04	*	0	0	0.0	317	1,780	5.6	76	470	6.2	8,574	25,237	2.9	538	2,479	4.6
	32	08/11	5	3	10	3.3	250	1,453	5.8	323	2,807	8.7	26,185	77,942	3.0	522	3,042	5.8
	33	08/18	7	0	0	0.0	123	585	4.8	398	3,668	9.2	16,900	52,327	3.1	215	927	4.3
	34	08/25	*	0	0	0.0	341	1,890	5.5	150	1,244	8.3	3,667	11,144	3.0	350	1,061	3.0
Total		20	17	291	17.1	1,304	6,925	5.3	955	8,241	8.6	55,332	166,663	3.0	1,660	7,813	4.7	

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Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SOCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
Izhut (252-30)	29 07/21	*	1	41	41.0	9	42	4.7	0	0	0.0	42	110	2.6	9	58	6.4
	30 07/28	11	5	25	5.0	815	3,337	4.1	42	346	8.2	8,160	21,074	2.6	859	4,702	5.5
	31 08/04	43	3	42	14.0	976	4,823	4.9	352	2,790	7.9	105,106	301,538	2.9	671	4,633	6.9
	32 08/11	34	8	70	8.8	3,387	10,087	3.0	393	2,961	7.5	61,055	187,384	3.1	527	3,105	5.9
	33 08/18	6	0	0	0.0	48	399	8.3	106	836	7.9	2,530	7,274	2.9	8	52	6.5
	34 08/25	8	0	0	0.0	63	286	4.5	735	6,681	9.1	3,998	12,031	3.0	2	11	5.5
	36 09/08	4	0	0	0.0	6	34	5.7	720	6,805	9.5	0	0	0.0	0	0	0.0
	Total	107	17	178	10.5	5,304	19,008	3.6	2,348	20,419	8.7	180,891	529,411	2.9	2,076	12,561	6.1
Kitoi Bay (252-32)	30 07/28	6	0	0	0.0	498	2,139	4.3	0	0	0.0	1,201	2,901	2.4	167	1,139	6.8
	31 08/04	47	6	132	22.0	499	2,514	5.0	85	644	7.6	91,212	260,165	2.9	619	4,696	7.6
	32 08/11	39	3	30	10.0	351	1,437	4.1	170	1,240	7.3	42,586	122,847	2.9	140	670	4.8
	33 08/18	11	0	0	0.0	27	90	3.3	646	5,533	8.6	9,367	27,412	2.9	2	10	5.0
	34 08/25	6	0	0	0.0	19	74	3.9	350	2,787	8.0	5,099	15,289	3.0	0	0	0.0
Total		109	9	162	18.0	1,394	6,254	4.5	1,251	10,204	8.2	149,465	428,614	2.9	928	6,515	7.0
Duck Bay (252-31)	27 07/07	*	0	0	0.0	114	618	5.4	17	98	5.8	52	139	2.7	158	1,000	6.3
	28 07/14	*	6	60	10.0	211	1,072	5.1	55	337	6.1	96	279	2.9	171	1,085	6.3
	29 07/21	*	3	35	11.7	324	1,882	5.8	7	47	6.7	1,184	3,696	3.1	223	1,778	8.0
	30 07/28	11	2	8	4.0	603	2,975	4.9	135	831	6.2	14,689	38,417	2.6	387	2,536	6.6
	31 08/04	53	14	206	14.7	1,121	5,914	5.3	646	4,466	6.9	101,844	304,296	3.0	1,349	9,042	6.7
	32 08/11	89	77	723	9.4	649	3,262	5.0	1,237	9,013	7.3	167,283	485,755	2.9	1,013	6,132	6.1
	34 08/25	4	0	0	0.0	74	464	6.3	224	2,006	9.0	1,453	4,290	3.0	8	38	4.8
	35 09/01	4	0	0	0.0	115	548	4.8	780	6,260	8.0	916	2,928	3.2	9	58	6.4
	36 09/08	*	0	0	0.0	0	0	0.0	15	150	10.0	0	0	0.0	0	0	0.0
	37 09/15	*	0	0	0.0	0	0	0.0	370	3,714	10.0	0	0	0.0	0	0	0.0
	Total	171	102	1,032	10.1	3,211	16,735	5.2	3,486	26,922	7.7	287,517	839,800	2.9	3,318	21,669	6.5
S.E. Afognak (252-33, 34, 35)	24 06/16	21	0	0	0.0	4,678	17,837	3.8	0	0	0.0	7	17	2.4	12	135	11.3
	25 06/23	34	3	38	12.7	7,601	27,162	3.6	0	0	0.0	49	160	3.3	266	2,265	8.5
	26 06/30	39	20	319	16.0	6,247	21,828	3.5	0	0	0.0	29	98	3.4	34	256	7.5
	27 07/07	*	0	0	0.0	54	186	3.4	0	0	0.0	26	74	2.8	10	79	7.9
	28 07/14	*	9	145	16.1	1,501	5,550	3.7	0	0	0.0	189	517	2.7	60	484	8.1
	29 07/21	12	24	285	11.9	2,215	10,391	4.7	225	1,218	5.4	9,534	27,456	2.9	1,393	11,235	8.1
	30 07/28	10	0	0	0.0	503	1,881	3.7	20	151	7.6	15,575	45,155	2.9	831	6,484	7.8
	31 08/04	8	0	0	0.0	130	670	5.2	137	974	7.1	10,467	32,036	3.1	73	394	5.4
	32 08/11	9	8	129	16.1	182	977	5.4	280	2,524	9.0	5,730	18,020	3.1	203	1,744	8.6
	33 08/18	*	0	0	0.0	5	31	6.2	486	4,036	8.3	401	1,025	2.6	26	157	6.0
	34 08/25	*	0	0	0.0	0	0	0.0	339	2,170	6.4	130	417	3.2	0	0	0.0
	35 09/01	*	0	0	0.0	30	156	5.2	810	6,697	8.3	61	194	3.2	2	10	5.0
	36 09/08	*	0	0	0.0	51	266	5.2	508	4,570	9.0	31	104	3.4	1	5	5.0
	37 09/15	*	0	0	0.0	0	0	0.0	68	527	7.8	0	0	0.0	0	0	0.0
	Total	149	64	916	14.3	23,197	86,935	3.7	2,873	22,857	8.0	42,229	125,273	3.0	2,911	23,248	8.0
Central, Terror Bay, Inner Uganik, Spiridon, Zachar, & Uyak Combined (253-11, 12, 13, 14, 31, 32, 33, 35, 254-10, 20 30, 40, 50)	23 06/09	16	106	739	7.0	3,658	18,081	4.9	2	18	9.0	15	50	3.3	148	1,198	8.1
	24 06/16	67	51	573	11.2	11,867	58,584	4.9	1	6	6.0	49	174	3.6	1,032	9,069	8.8
	25 06/23	58	118	1,356	11.5	10,420	48,953	4.7	0	0	0.0	306	886	2.9	2,926	27,672	9.5
	27 07/07	108	225	2,631	11.7	16,846	95,426	5.7	47	205	4.4	7,544	24,710	3.3	6,980	64,519	9.2
	28 07/14	173	377	3,905	10.4	13,206	70,109	5.3	580	4,785	8.3	36,402	119,503	3.3	10,283	92,525	9.0
	29 07/21	178	306	3,570	11.7	20,191	110,966	5.5	836	6,444	7.7	59,895	189,480	3.2	9,852	87,046	8.8
	30 07/28	241	408	4,227	10.4	20,185	110,601	5.5	3,557	27,729	7.8	190,325	604,913	3.2	11,250	91,617	8.1
	31 08/04	288	882	10,417	11.8	27,151	152,634	5.6	8,775	70,271	8.0	288,748	904,264	3.1	12,130	93,563	7.7
	32 08/11	119	614	6,226	10.1	12,036	66,644	5.5	4,879	42,900	8.8	108,403	336,688	3.1	4,895	35,518	7.3
	33 08/18	198	377	4,226	11.2	82,091	441,351	5.4	9,379	81,597	8.7	205,241	644,861	3.1	4,423	25,918	5.9
	34 08/25	362	149	1,885	12.7	105,986	566,354	5.3	13,323	114,757	8.6	298,315	951,568	3.2	3,151	19,776	6.3
	35 09/01	330	112	1,710	15.3	73,184	394,178	5.4	14,199	129,828	9.1	100,050	323,316	3.2	1,145	7,032	6.1
	36 09/08	65	15	288	19.2	14,419	75,143	5.2	5,733	48,011	8.4	3,070	9,832	3.2	112	779	7.0

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Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SOCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
	37 09/15	30	2	30	15.0	5,224	27,185	5.2	815	7,830	9.6	175	500	2.9	36	261	7.3
	38 09/22	6	0	0	0.0	2,277	11,106	4.9	258	2,437	9.4	0	0	0.0	0	0	0.0
	39 09/29	*	2	24	12.0	774	4,055	5.2	28	305	10.9	0	0	0.0	2	15	7.5
Total		2,241	3,744	41,807	11.2	419,515	2,251,370	5.4	62,412	537,123	8.6	1,298,538	4,110,745	3.2	68,365	556,508	8.1
North Cape, Anton	24 06/16	11	0	0	0.0	1,560	6,936	4.4	1	13	13.0	70	160	2.3	240	2,234	9.3
Larsen, Sheratin, &	25 06/23	14	0	0	0.0	2,538	11,611	4.6	0	0	0.0	283	738	2.6	1,398	11,383	8.1
Kishuyak Combined	27 07/07	7	5	54	10.8	856	4,262	5.0	13	88	6.8	309	838	2.7	402	2,936	7.3
(259-36, 37, 38, 39)	28 07/14	32	15	147	9.8	3,178	16,630	5.2	369	2,174	5.9	4,242	11,736	2.8	2,534	17,173	6.8
	29 07/21	57	5	59	11.8	4,262	24,030	5.6	1,015	6,672	6.6	13,450	37,744	2.8	4,078	29,246	7.2
	30 07/28	59	9	115	12.8	2,059	11,346	5.5	472	2,920	6.2	12,168	35,551	2.9	3,544	24,435	6.9
	31 08/04	50	6	80	13.3	1,265	6,200	4.9	192	1,338	7.0	34,375	107,686	3.1	2,955	21,268	7.2
	32 08/11	28	2	16	8.0	672	3,558	5.3	436	3,243	7.4	15,892	49,263	3.1	1,298	7,505	5.8
	33 08/18	14	0	0	0.0	117	691	5.9	192	1,493	7.8	5,684	17,036	3.0	1,526	10,807	7.1
	34 08/25	*	0	0	0.0	20	102	5.1	40	402	10.1	352	1,089	3.1	113	785	6.9
	35 09/01	5	0	0	0.0	56	329	5.9	390	3,221	8.3	21	78	3.7	855	5,347	6.3
	36 09/08	*	0	0	0.0	0	0	0.0	356	3,157	8.9	0	0	0.0	156	1,244	8.0
	37 09/15	*	0	0	0.0	0	0	0.0	16	132	8.3	0	0	0.0	259	1,806	7.0
Total		283	42	471	11.2	16,583	85,695	5.2	3,492	24,853	7.1	86,846	261,919	3.0	19,358	136,169	7.0
Outer Karluk	32 08/11	25	3	46	15.3	7,501	39,070	5.2	209	1,663	8.0	11,007	35,714	3.2	70	595	8.5
(255-20)	33 08/18	132	28	411	14.7	105,817	578,807	5.5	3,296	29,887	9.1	105,181	336,110	3.2	530	3,673	6.9
	34 08/25	26	4	30	7.5	16,239	87,454	5.4	352	3,057	8.7	11,919	37,510	3.1	80	520	6.5
	36 09/08	*	2	49	24.5	92	532	5.8	24	248	10.3	22	60	2.7	0	0	0.0
	37 09/15	21	5	81	16.2	6,344	32,866	5.2	1,380	13,238	9.6	121	362	3.0	46	295	6.4
	39 09/29	*	0	0	0.0	65	372	5.7	39	393	10.1	7	20	2.9	3	27	9.0
TOTAL		206	42	617	14.7	136,058	739,101	5.4	5,300	48,486	9.1	128,257	409,776	3.2	729	5,110	7.0
Inner Karluk	32 08/11	*	0	0	0.0	138	716	5.2	12	88	7.3	512	1,576	3.1	4	24	6.0
(255-10)	33 08/18	32	4	50	12.5	25,793	134,337	5.2	789	5,868	7.4	41,909	128,984	3.1	133	1,011	7.6
	34 08/25	7	2	72	36.0	5,494	32,233	5.9	342	3,128	9.1	6,949	23,198	3.3	138	1,000	7.2
	37 09/15	*	0	0	0.0	477	2,638	5.5	55	535	9.7	2	5	2.5	10	90	9.0
Total		42	6	122	20.3	31,902	169,924	5.3	1,198	9,619	8.0	49,372	153,763	3.1	285	2,125	7.5
Sturgeon (256-40)	27 07/07	18	22	244	11.1	5,858	29,241	5.0	0	0	0.0	13	34	2.6	99	871	8.8
	28 07/14	*	0	0	0.0	154	738	4.8	5	31	6.2	17	55	3.2	43	320	7.4
	29 07/21	16	5	95	19.0	8,785	46,893	5.3	5	40	8.0	312	1,011	3.2	10	103	10.3
	30 07/28	*	1	7	7.0	45	245	5.4	13	102	7.8	1,838	4,876	3.0	6	50	8.3
	32 08/11	10	0	0	0.0	1,715	8,994	5.2	17	120	7.1	4,509	14,468	3.2	4	28	7.0
	33 08/18	78	22	295	13.4	52,245	287,723	5.5	1,513	13,003	8.6	96,518	306,274	3.2	409	3,109	7.6
	34 08/25	7	0	0	0.0	2,695	14,362	5.3	224	1,885	8.4	6,268	20,703	3.3	29	201	6.9
	35 09/01	*	0	0	0.0	640	3,534	5.5	95	964	10.1	770	2,676	3.5	20	128	6.4
	36 09/08	*	1	20	20.0	205	1,168	5.7	24	240	10.0	34	103	3.0	0	0	0.0
	37 09/15	*	0	0	0.0	560	3,082	5.5	73	665	9.1	26	81	3.1	18	110	6.1
Total		134	51	661	13.0	72,902	395,980	5.4	1,969	17,050	8.7	110,105	350,281	3.2	638	4,920	7.7
Halibut Bay	24 06/16	*	3	43	14.3	400	1,900	4.8	0	0	0.0	0	0	0.0	0	0	0.0
(256-25, 30)	27 07/07	9	4	61	15.3	5,197	29,319	5.6	316	2,447	7.7	19,478	68,068	3.5	165	1,239	7.5
	28 07/14	14	8	99	12.4	3,289	17,091	5.2	1	7	7.0	36	115	3.2	113	935	8.3
	29 07/21	4	0	0	0.0	1,099	5,718	5.2	9	74	8.2	122	372	3.0	15	137	9.1
	31 08/04	90	108	1,423	13.2	24,651	131,251	5.3	493	3,756	7.6	59,140	190,817	3.2	201	1,514	7.5
	32 08/11	454	312	3,757	12.0	117,571	626,424	5.3	3,517	31,060	8.8	256,257	837,358	3.3	2,353	15,548	6.6
	33 08/18	392	143	2,182	15.3	196,017	1,046,993	5.3	7,454	67,262	9.0	231,284	749,156	3.2	1,261	8,418	6.7
	34 08/25	158	17	244	14.4	58,486	313,019	5.4	2,833	25,682	9.1	81,365	264,632	3.3	343	2,412	7.0
	35 09/01	152	65	767	11.8	32,127	171,731	5.3	8,103	73,723	9.1	16,012	51,434	3.2	208	1,481	7.1
	36 09/08	15	4	49	12.3	727	3,983	5.5	761	6,785	8.9	265	844	3.2	24	159	6.6
Total		1,289	664	8,625	13.0	439,564	2,347,429	5.3	23,487	210,796	9.0	663,959	2,162,796	3.3	4,683	31,843	6.8

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Section (Stat. Area)	Stat Week/ Week End	Ldgs	Chinook			SOCKEYE			COHO			PINK			CHOM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
Inner & Outer Ayakulik (256-10, 20)	23 06/09	62	192	4,131	21.5	19,524	93,933	4.8	0	0	0.0	1	4	4.0	34	214	6.3
	24 06/16	535	1,734	29,176	16.8	243,464	1,163,082	4.8	2,578	12,469	4.8	101	283	2.8	2,559	18,899	7.4
	25 06/23	870	1,559	28,847	18.5	367,530	1,712,278	4.7	5	27	5.4	690	1,704	2.5	5,079	44,367	8.7
	26 06/30	400	1,024	13,670	13.3	204,366	944,666	4.6	2	23	11.5	398	1,025	2.6	3,104	27,663	8.9
	27 07/07	412	576	6,089	10.6	163,632	825,849	5.0	38	353	9.3	1,484	4,174	2.8	5,827	49,182	8.4
	28 07/14	397	273	3,074	11.3	172,961	881,115	5.1	236	1,961	8.3	4,494	13,567	3.0	5,184	43,322	8.4
	29 07/21	473	175	2,227	12.7	235,495	1,219,039	5.3	581	4,396	7.6	32,455	98,909	3.0	3,192	25,877	8.1
	30 07/28	142	25	250	10.0	49,243	259,725	5.3	355	2,644	7.4	23,988	75,205	3.1	706	5,374	7.6
	31 08/04	20	102	1,406	13.8	10,894	64,550	5.9	428	3,217	7.5	17,055	58,513	3.4	213	1,814	8.5
	32 08/11	85	14	245	17.5	10,647	53,781	5.1	282	2,651	9.4	75,972	254,132	3.3	57	426	7.5
	33 08/18	16	6	70	11.7	6,593	32,141	4.9	145	1,177	8.1	41,760	131,839	3.2	9	76	8.4
	34 08/25	14	0	0	0.0	4,751	24,479	5.2	366	3,455	9.4	10,662	33,805	3.2	56	371	6.6
	35 09/01	*	0	0	0.0	200	920	4.6	22	202	9.2	36	127	3.5	0	0	0.0
	Total	3,427	5,680	89,185	15.7	1,489,300	7,295,558	4.9	5,038	32,575	6.5	209,096	673,287	3.2	26,020	217,585	8.4
Cape Alitak (257-10, 20)	23 06/09	*	1	20	20.0	1,262	5,864	4.6	0	0	0.0	0	0	0.0	36	340	9.4
	24 06/16	96	108	2,106	19.5	44,884	208,680	4.6	4	38	9.5	10	31	3.1	619	6,329	10.2
	25 06/23	19	10	152	15.2	2,998	15,194	5.1	0	0	0.0	6	15	2.5	112	1,019	9.1
	26 06/30	262	76	1,282	16.9	112,443	510,516	4.5	4	42	10.5	25	62	2.5	2,018	19,481	9.7
	27 07/07	251	108	1,802	16.7	158,666	741,773	4.7	42	317	7.5	265	848	3.2	4,654	42,226	9.1
	28 07/14	175	56	963	17.2	53,957	262,792	4.9	55	446	8.1	902	2,441	2.7	8,730	65,354	7.5
	29 07/21	92	27	486	18.0	38,565	190,113	4.9	115	999	8.7	2,697	8,236	3.1	4,297	36,284	8.4
	30 07/28	109	47	925	19.7	48,254	255,491	5.3	309	2,769	9.0	14,419	46,854	3.2	1,808	13,899	7.7
	31 08/04	281	162	2,451	15.1	135,108	735,826	5.4	1,535	12,944	8.4	60,200	193,592	3.2	3,554	25,724	7.2
	32 08/11	154	35	634	18.1	52,944	290,827	5.5	1,004	9,763	9.7	34,804	114,317	3.3	1,272	9,528	7.5
	33 08/18	51	15	305	20.3	14,165	75,696	5.3	909	9,071	10.0	7,433	24,632	3.3	572	4,223	7.4
	34 08/25	21	1	18	18.0	4,201	21,366	5.1	218	2,213	10.2	1,660	5,674	3.4	111	735	6.6
	35 09/01	31	3	61	20.3	4,742	24,095	5.1	980	9,805	10.0	584	1,842	3.2	956	8,480	8.9
	36 09/08	7	2	22	11.0	1,227	6,516	5.3	919	8,260	9.0	167	507	3.0	95	637	6.7
	37 09/15	*	0	0	0.0	240	1,193	5.0	160	1,530	9.6	0	0	0.0	12	72	6.0
	Total	1,554	651	11,227	17.2	673,656	3,345,942	5.0	6,254	58,197	9.3	123,172	399,051	3.2	28,846	234,331	8.1
Humpy/Deadman (257-50, 60, 70)	24 06/16	4	1	35	35.0	2,481	11,474	4.6	0	0	0.0	0	0	0.0	67	494	7.4
	25 06/23	6	1	15	15.0	887	4,107	4.6	0	0	0.0	0	0	0.0	91	762	8.4
	26 06/30	17	7	163	23.3	5,127	23,164	4.5	2	20	10.0	2	5	2.5	398	4,023	10.1
	27 07/07	8	3	49	16.3	3,937	21,142	5.4	4	29	7.3	43	107	2.5	372	2,975	8.0
	28 07/14	7	0	0	0.0	1,627	9,439	5.8	9	71	7.9	181	471	2.6	140	1,278	9.1
	29 07/21	4	1	5	5.0	1,707	10,151	5.9	4	33	8.3	143	407	2.8	99	770	7.8
	30 07/28	7	2	23	11.5	1,007	5,053	5.0	12	81	6.8	912	2,634	2.9	1,933	19,539	10.1
	31 08/04	*	0	0	0.0	337	1,762	5.2	15	127	8.5	1,176	3,673	3.1	124	1,046	8.4
	Total	55	15	290	19.3	17,110	86,292	5.0	46	361	7.8	2,457	7,297	3.0	3,224	30,887	9.6
Seven Rivers (258-70, 80, 83, 85, 90)	28 07/14	*	0	0	0.0	945	5,378	5.7	0	0	0.0	0	0	0.0	0	0	0.0
	31 08/04	7	0	0	0.0	2	8	4.0	0	0	0.0	4,733	14,639	3.1	83	650	7.8
	32 08/11	4	1	20	20.0	197	1,082	5.5	1	10	10.0	21,725	67,365	3.1	8	69	8.6
	Total	12	1	20	20.0	1,144	6,468	5.7	1	10	10.0	26,458	82,004	3.1	91	719	7.9
Two Headed (258-54, 55, 60)	25 06/23	*	0	0	0.0	297	1,382	4.7	0	0	0.0	1	3	3.0	1	6	6.0
	29 07/21	*	1	8	8.0	316	2,015	6.4	232	1,440	6.2	335	905	2.7	379	3,409	9.0
	31 08/04	9	128	1,301	10.2	531	2,808	5.3	323	3,473	10.8	13,181	41,780	3.2	1,611	13,389	8.3
	32 08/11	10	39	590	15.1	323	1,737	5.4	320	2,596	8.1	11,057	35,829	3.2	1,774	12,457	7.0
	33 08/18	*	0	0	0.0	27	147	5.4	74	722	9.8	912	3,228	3.5	246	1,576	6.4
	34 08/25	*	0	0	0.0	0	0	0.0	10	112	11.2	33	112	3.4	162	743	4.6
	Total	28	168	1,899	11.3	1,494	8,089	5.4	959	8,343	8.7	25,519	81,857	3.2	4,173	31,580	7.6
Sickalidak (258-10, 20, 30, 40, 51, 52, 53)	25 06/23	7	11	158	14.4	5,142	24,267	4.7	0	0	0.0	554	1,184	2.1	1,074	7,814	7.3
	27 07/07	37	124	671	5.4	11,004	71,195	6.5	1,481	9,940	6.7	1,425	4,052	2.8	5,140	34,349	6.7
	28 07/14	52	384	2,258	5.9	14,528	96,908	6.7	3,285	21,816	6.6	10,846	31,582	2.9	10,322	66,486	6.4
	29 07/21	88	402	2,368	5.9	19,640	125,927	6.4	5,725	36,119	6.3	20,506	60,572	3.0	10,112	68,255	6.7

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Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SOCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
	30 07/28	92	207	1,831	8.8	16,058	96,023	6.0	5,178	33,799	6.5	35,254	106,299	3.0	8,426	55,769	6.6
	31 08/04	90	98	1,365	13.9	5,454	31,776	5.8	1,330	9,576	7.2	44,411	139,362	3.1	8,118	67,012	8.3
	32 08/11	76	42	759	18.1	1,522	7,973	5.2	535	4,102	7.7	55,605	178,759	3.2	17,504	137,261	7.8
	33 08/18	42	26	383	14.7	295	1,549	5.3	616	5,278	8.6	23,932	78,905	3.3	7,439	56,916	7.7
	34 08/25	21	13	138	10.6	4,822	25,504	5.3	413	3,849	9.3	12,518	40,647	3.2	2,584	17,602	6.8
	35 09/01	7	0	0	0.0	15	70	4.7	27	254	9.4	837	3,002	3.6	3,764	26,011	6.9
Total		512	1,307	9,931	7.6	78,480	481,192	6.1	18,590	124,733	6.7	205,888	644,364	3.1	74,483	537,475	7.2
Inner & Outer Ugak (259-40, 41, 42)	24 06/16	*	1	11	11.0	32	128	4.0	0	0	0.0	0	0	0.0	1	10	10.0
	25 06/23	*	8	73	9.1	61	302	5.0	0	0	0.0	0	0	0.0	0	0	0.0
	27 07/07	12	85	728	8.6	3,626	20,843	5.7	0	0	0.0	14	42	3.0	142	1,548	10.9
	28 07/14	18	87	846	9.7	4,735	23,836	5.0	0	0	0.0	80	257	3.2	794	7,920	10.0
	29 07/21	20	173	1,919	11.1	3,486	18,794	5.4	0	0	0.0	921	3,091	3.4	847	8,405	9.9
	30 07/28	7	60	744	12.4	1,176	6,590	5.6	1	15	15.0	192	501	2.6	192	1,682	8.8
	31 08/04	8	33	408	12.4	375	1,798	4.8	0	0	0.0	1,654	4,961	3.0	2,108	18,416	8.7
	32 08/11	4	3	109	36.3	2	8	4.0	1	8	8.0	2,432	7,302	3.0	896	7,503	8.4
	33 08/18	*	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	600	5,473	9.1
	38 09/22	*	0	0	0.0	0	0	0.0	44	500	11.4	0	0	0.0	0	0	0.0
	Total	73	450	4,838	10.8	13,493	72,299	5.4	46	523	11.4	5,293	16,154	3.1	5,580	50,957	9.1
Outer Chiniak (259-21, 25)	29 07/21	*	0	0	0.0	0	0	0.0	0	0	0.0	15	40	2.7	196	2,080	10.6
	30 07/28	5	0	0	0.0	2	9	4.5	0	0	0.0	448	1,201	2.7	363	3,631	10.0
	31 08/04	5	10	159	15.9	93	477	5.1	91	560	6.2	3,867	11,377	2.9	843	8,526	10.1
	32 08/11	*	0	0	0.0	0	0	0.0	0	0	0.0	731	2,198	3.0	406	3,624	8.9
Total		14	10	159	15.9	95	486	5.1	91	560	6.2	5,061	14,816	2.9	1,808	17,861	9.9
Inner Chiniak (259-23, 24)	29 07/21	*	0	0	0.0	0	0	0.0	0	0	0.0	15	47	3.1	165	1,339	8.1
	30 07/28	*	3	25	8.3	0	0	0.0	0	0	0.0	12	29	2.4	6	72	12.0
	31 08/04	6	8	154	19.3	0	0	0.0	0	0	0.0	1,954	5,777	3.0	567	5,418	9.6
	32 08/11	12	3	70	23.3	1	8	8.0	1	6	6.0	6,752	20,227	3.0	1,322	12,015	9.1
	33 08/18	*	0	0	0.0	0	0	0.0	3	21	7.0	740	2,300	3.1	105	885	8.4
Total		22	14	249	17.8	1	8	8.0	4	27	6.8	9,473	28,380	3.0	2,165	19,729	9.1
Buskin River (259-22)	30 07/28	*	1	30	30.0	5	24	4.8	0	0	0.0	159	403	2.5	680	7,173	10.5
	31 08/04	*	0	0	0.0	11	30	2.7	1	9	9.0	250	777	3.1	147	1,499	10.2
	32 08/11	4	1	21	21.0	1	9	9.0	0	0	0.0	2,638	7,639	2.9	391	3,632	9.3
Total		9	2	51	25.5	17	63	3.7	1	9	9.0	3,047	8,819	2.9	1,218	12,304	10.1
Monashka/Mill Bay (259-10)	32 08/11	*	0	0	0.0	0	0	0.0	0	0	0.0	4,311	11,899	2.8	30	213	7.1
	Total	*	0	0	0.0	0	0	0.0	0	0	0.0	4,311	11,899	2.8	30	213	7.1
Big River (262-10,15)	28 07/14	*	0	0	0.0	1,188	7,537	6.3	0	0	0.0	121	360	3.0	642	4,599	7.2
	29 07/21	8	1	2	2.0	4,025	26,564	6.6	103	996	9.7	490	1,482	3.0	1,489	12,696	8.5
	30 07/28	*	0	0	0.0	1,135	6,769	6.0	164	1,240	7.6	1,000	2,952	3.0	238	1,573	6.6
	31 08/04	5	1	11	11.0	2,742	17,266	6.3	865	5,694	6.6	2,713	7,885	2.9	721	5,056	7.0
	32 08/11	*	0	0	0.0	5	17	3.4	3	27	9.0	1,428	4,608	3.2	2,999	24,127	8.0
	33 08/18	*	0	0	0.0	2	10	5.0	14	94	6.7	2,319	7,044	3.0	3,412	25,251	7.4
	37 09/15	*	0	0	0.0	0	0	0.0	2,035	21,309	10.5	0	0	0.0	0	0	0.0
	38 09/22	*	0	0	0.0	0	0	0.0	140	1,053	7.5	0	0	0.0	0	0	0.0
	Total	27	2	13	6.5	9,097	58,163	6.4	3,324	30,413	9.1	8,071	24,331	3.0	9,501	73,302	7.7

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Appendix D.3. (page 6 of 6)

Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chingok			SOCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
Halle Bay (262-20)	29 07/21	4	0	0	0.0	473	2,788	5.9	16	102	6.4	1,235	3,683	3.0	1,220	10,072	8.3
	30 07/28	4	0	0	0.0	0	0	0.0	0	0	0.0	1,191	3,888	3.3	1,653	15,202	9.2
	31 08/04	*	0	0	0.0	8	55	6.9	0	0	0.0	1,180	3,849	3.3	246	2,300	9.3
	32 08/11	4	0	0	0.0	8	33	4.1	9	61	6.8	1,125	3,664	3.3	865	6,588	7.6
	33 08/18	*	0	0	0.0	43	215	5.0	0	0	0.0	240	710	3.0	182	1,280	7.0
	37 09/15	*	0	0	0.0	0	0	0.0	895	8,086	9.0	0	0	0.0	0	0	0.0
	Total	16	0	0	0.0	532	3,091	5.8	920	8,249	9.0	4,971	15,794	3.2	4,166	35,442	8.5
Outer Kukak (262-25, 30)	25 06/23	*	12	141	11.8	3,031	11,398	3.8	0	0	0.0	8	21	2.6	47	552	11.7
	29 07/21	*	3	34	11.3	532	3,307	6.2	4	44	11.0	154	444	2.9	115	1,056	9.2
	30 07/28	*	0	0	0.0	6	30	5.0	1	4	4.0	1,309	3,037	2.3	44	175	4.0
	32 08/11	4	5	48	9.6	195	1,151	5.9	14	111	7.9	1,347	4,109	3.1	4,950	44,361	9.0
	33 08/18	*	0	0	0.0	0	0	0.0	3	20	6.7	10	30	3.0	1,650	17,747	10.8
	35 09/01	5	1	16	16.0	191	1,130	5.9	69	722	10.5	449	1,467	3.3	3,071	23,434	7.6
	Total	18	21	239	11.4	3,955	17,016	4.3	91	901	9.9	3,277	9,108	2.8	9,877	87,325	8.8
Dakavak (262-35, 40, 45, 50, & 55)	24 06/16	*	0	0	0.0	377	1,482	3.9	0	0	0.0	0	0	0.0	0	0	0.0
	27 07/07	6	8	74	9.3	1,046	5,213	5.0	1	15	15.0	175	530	3.0	975	9,212	9.4
	28 07/14	28	14	213	15.2	11,817	74,678	6.3	372	2,455	6.6	2,137	6,713	3.1	5,207	44,824	8.6
	29 07/21	42	79	915	11.6	21,905	140,335	6.4	1,676	11,505	6.9	5,600	17,788	3.2	6,960	55,160	7.9
	30 07/28	60	73	998	13.7	18,489	103,751	5.6	4,369	29,581	6.8	28,675	89,147	3.1	7,285	56,734	7.8
	31 08/04	24	71	734	10.3	5,978	33,966	5.7	2,224	15,803	7.1	33,928	106,250	3.1	4,125	30,310	7.3
	32 08/11	44	34	444	13.1	4,558	23,082	5.1	3,458	25,919	7.5	58,905	194,119	3.3	7,782	56,521	7.3
	34 08/25	*	0	0	0.0	0	0	0.0	0	0	0.0	800	2,452	3.1	0	0	0.0
	Total	206	279	3,378	12.1	64,170	382,507	6.0	12,100	85,278	7.0	130,220	416,999	3.2	32,334	252,761	7.8
Katmai (262-60)	29 07/21	19	75	605	8.1	14,007	80,403	5.7	1,427	9,191	6.4	4,853	14,694	3.0	2,200	17,414	7.9
	30 07/28	12	31	308	9.9	9,208	57,237	6.2	1,890	12,844	6.8	7,945	19,605	2.5	2,320	18,361	7.9
	31 08/04	4	34	289	8.5	1,349	7,174	5.3	146	1,073	7.3	5,434	16,829	1.1	689	4,599	6.7
	Total	35	140	1,202	8.6	24,564	144,814	5.9	3,463	23,108	6.7	18,232	51,128	2.8	5,209	40,374	7.8
Alinuchak (262-65, 70)	29 07/21	*	0	0	0.0	0	0	0.0	0	0	0.0	1,607	4,770	3.0	2,294	21,423	9.3
	30 07/28	6	0	0	0.0	353	1,962	5.6	93	590	6.3	13,076	42,217	3.2	4,001	32,392	8.1
	31 08/04	35	5	77	15.4	1,288	8,649	6.7	320	2,328	7.3	126,992	401,507	3.2	9,706	75,467	7.8
	32 08/11	34	2	30	15.0	208	1,079	5.2	747	5,536	7.4	58,151	181,189	3.1	3,314	25,349	7.6
	33 08/18	46	6	71	11.8	554	2,932	5.3	254	2,254	8.9	70,462	227,823	3.2	4,414	31,476	7.1
	34 08/25	*	0	0	0.0	0	0	0.0	0	0	0.0	9,234	29,185	1.2	22	201	9.1
	35 09/01	*	0	0	0.0	14	85	6.1	477	3,720	7.8	5,277	17,249	3.3	624	3,891	6.2
	Total	128	13	178	13.7	2,417	14,707	6.1	1,891	14,428	7.6	284,799	903,940	3.2	24,375	190,199	7.8
Cape Igvak (262-75, 80, 90, 95)	28 07/14	164	624	5,951	9.5	43,811	266,843	6.1	250	1,588	6.4	7,250	21,162	2.9	14,720	121,643	8.3
	29 07/21	181	1,766	12,199	6.9	70,388	440,254	6.3	4,272	28,903	6.8	25,259	76,008	3.0	29,750	241,075	8.1
	30 07/28	144	205	1,816	8.9	35,654	215,405	6.0	7,004	47,696	6.8	61,144	188,578	3.1	19,398	145,316	7.5
	31 08/04	41	70	447	6.4	4,279	25,300	5.9	3,822	29,136	7.6	46,514	152,717	3.3	17,482	139,636	8.0
	32 08/11	57	137	1,372	10.0	4,283	24,863	5.8	5,225	41,184	7.9	62,722	193,316	3.1	7,030	49,851	7.1
	33 08/18	24	402	3,581	8.9	5,962	31,614	5.3	4,848	38,713	8.0	22,621	71,646	3.2	2,403	16,739	7.0
	35 09/01	*	0	0	0.0	15	95	6.3	2	15	7.5	19	53	2.8	5	38	7.6
Total	612	3,204	25,366	7.9	164,392	1,004,374	6.1	25,423	187,235	7.4	225,529	703,480	3.1	90,788	714,298	7.9	
Wide Bay (262-85)	29 07/21	*	17	198	11.6	1,039	6,348	6.1	65	493	7.6	266	846	3.2	297	1,981	6.7
	31 08/04	33	3	37	12.3	75	431	5.7	240	1,857	7.7	64,714	214,973	3.3	6,342	49,312	7.8
	32 08/11	44	1	13	13.0	54	310	5.7	102	750	7.4	92,265	301,173	3.3	9,220	66,641	7.2
	33 08/18	24	2	6	3.0	81	503	6.2	56	402	7.2	30,371	99,070	3.3	4,296	29,143	6.8
	Total	104	23	254	11.0	1,249	7,592	6.1	463	3,502	7.6	187,616	616,062	3.3	20,155	147,077	7.3
Purse Seine Totals		12,410	17,550	213,904	12.2	3,869,588	19,985,601	5.2	238,723	1,944,154	8.1	5,350,391	16,774,153	3.1	471,641	3,671,645	7.8

Appendix D.4. Commercial beach seine caught salmon harvest by species, statistical area, and statistical week, Kodiak Management Area, 1990.

Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SOCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
Beach Seine																	
S.W. Afognak & Raspberry (Combined) (251-10,20)	34 08/25	*	0	0	0.0	0	0	0.0	1	7	7.0	1,290	4,666	3.6	0	0	0.0
	35 09/01	*	0	0	0.0	0	0	0.0	106	1,010	9.5	0	0	0.0	0	0	0.0
	37 09/15	*	0	0	0.0	35	173	4.9	68	653	9.6	0	0	0.0	1	4	4.0
	Total		4	0	0	0.0	35	173	4.9	175	1,670	9.5	1,290	4,666	3.6	1	4
N.W. Afognak (251-30,40,50)	28 07/14	*	0	0	0.0	6	25	4.2	0	0	0.0	33	93	2.8	20	177	8.9
	30 07/28	*	0	0	0.0	4	18	4.5	0	0	0.0	3,455	11,185	3.2	0	0	0.0
	31 08/04	6	0	0	0.0	3	16	5.3	2	17	8.5	4,740	14,209	3.0	258	2,023	7.8
	32 08/11	4	0	0	0.0	0	0	0.0	10	99	9.9	3,760	11,570	3.1	279	1,563	5.6
	33 08/18	*	0	0	0.0	0	0	0.0	27	193	7.1	1,393	4,781	3.4	128	792	6.2
	34 08/25	*	0	0	0.0	3	13	4.3	25	223	8.9	659	2,013	3.1	16	134	8.4
	Total	20	0	0	0.0	16	72	4.5	64	532	8.3	14,040	43,851	3.1	701	4,689	6.7
Shuyak (251-60,70,81)	32 08/11	*	0	0	0.0	1	10	10.0	2	18	9.0	775	2,198	2.8	0	0	0.0
	34 08/25	*	0	0	0.0	0	0	0.0	235	2,001	8.5	386	1,237	3.2	0	0	0.0
	37 09/15	*	0	0	0.0	0	0	0.0	92	796	8.7	0	0	0.0	0	0	0.0
	Total	*	0	0	0.0	1	10	10.0	329	2,815	8.6	1,161	3,435	3.0	0	0	0.0
N.E. Afognak (251-90,252-10,20)	34 08/25	*	0	0	0.0	0	0	0.0	0	0	0.0	1,150	3,133	2.7	0	0	0.0
	Total	*	0	0	0.0	0	0	0.0	0	0	0.0	1,150	3,133	2.7	0	0	0.0
Izhut (252-30)	32 08/11	*	0	0	0.0	0	0	0.0	0	0	0.0	1,311	3,433	2.6	0	0	0.0
	35 09/01	*	0	0	0.0	0	0	0.0	77	694	9.0	2	8	4.0	0	0	0.0
	36 09/08	*	0	0	0.0	0	0	0.0	49	460	9.4	0	0	0.0	0	0	0.0
	Total	*	0	0	0.0	0	0	0.0	126	1,154	9.2	1,313	3,441	2.6	0	0	0.0
Kitoi Bay (252-32)	32 08/11	*	0	0	0.0	2	7	3.5	9	52	5.8	332	889	2.7	0	0	0.0
	Total	*	0	0	0.0	2	7	3.5	9	52	5.8	332	889	2.7	0	0	0.0
S.E. Afognak (252-33,34,35)	24 06/16	4	0	0	0.0	84	320	3.8	0	0	0.0	0	0	0.0	0	0	0.0
	25 06/23	*	0	0	0.0	158	559	3.5	0	0	0.0	0	0	0.0	0	0	0.0
	26 06/30	*	0	0	0.0	116	372	3.2	0	0	0.0	0	0	0.0	0	0	0.0
	27 07/07	*	0	0	0.0	435	1,392	3.2	0	0	0.0	2	7	3.5	0	0	0.0
	28 07/14	*	0	0	0.0	171	600	3.5	0	0	0.0	90	216	2.4	0	0	0.0
	30 07/28	*	0	0	0.0	29	103	3.6	0	0	0.0	35	92	2.6	0	0	0.0
	Total	16	0	0	0.0	993	3,346	3.4	0	0	0.0	127	315	2.5	0	0	0.0
Central, Terror Bay, Inner Uganik, Spiridon, Zachar & Dyak Combined (253-11,12,13,14,31,32, 33,35, 254-10,20,30,40)	23 06/09	*	0	0	0.0	32	186	5.8	0	0	0.0	0	0	0.0	0	0	0.0
	24 06/16	7	0	0	0.0	357	1,998	5.6	0	0	0.0	0	0	0.0	1	7	7.0
	25 06/23	4	0	0	0.0	162	730	4.5	0	0	0.0	0	0	0.0	8	58	7.3
	27 07/07	18	3	72	24.0	1,328	7,548	5.7	2	30	15.0	884	3,013	3.4	546	4,980	9.1
	28 07/14	26	5	83	16.6	433	2,460	5.7	0	0	0.0	2,340	8,049	3.4	746	7,388	9.9
	29 07/21	27	3	23	7.7	379	1,947	5.1	1	8	8.0	4,554	16,336	3.6	743	7,048	9.5
	30 07/28	29	4	86	21.5	391	1,348	3.4	1	8	8.0	8,115	25,915	3.2	160	1,390	8.7
	31 08/04	24	2	47	23.5	51	232	4.5	1	12	12.0	5,360	17,649	3.3	265	2,243	8.5
	32 08/11	16	11	181	16.5	226	770	3.4	1	3	3.0	3,023	9,853	3.3	217	1,468	6.8
	33 08/18	19	3	41	13.7	781	4,248	5.4	42	322	7.7	4,808	15,066	3.1	14	74	5.3
	34 08/25	25	0	0	0.0	2,131	11,505	5.4	39	310	7.9	4,511	15,660	3.5	21	121	5.8
	35 09/01	11	0	0	0.0	710	3,984	5.6	38	311	8.2	755	2,630	3.5	4	26	6.5
	37 09/15	*	0	0	0.0	0	0	0.0	533	5,016	9.4	0	0	0.0	0	0	0.0
	38 09/22	*	0	0	0.0	0	0	0.0	146	1,315	9.0	0	0	0.0	0	0	0.0
	41 10/13	*	0	0	0.0	0	0	0.0	81	760	9.4	0	0	0.0	0	0	0.0
	Total		212	31	533	17.2	6,981	36,956	5.3	885	8,095	9.1	34,350	114,171	3.3	2,725	24,803

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Appendix D.4. (page 2 of 3)

Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SOCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
North Cape, Anton Larson, Sheratin, & Kizhuyak Combined (259-36,37,38,39)	32 08/11 33 08/18 34 08/25 35 09/01 36 09/08 Total	* * 5 * * 12	0 0 0 0 0 0	0 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0	1 1 0 0 0 2	6 4 0 0 0 10	6.0 4.0 0.0 0.0 0.0 5.0	0 0 0 5 80 85	0 0 0 41 877 918	0.0 0.0 0.0 8.2 11.0 10.8	78 523 282 27 0 910	259 1,587 905 82 0 2,833	3.3 3.0 3.2 3.0 0.0 3.1	6 250 272 116 0 644	54 1,662 2,044 777 0 4,537	9.0 6.6 7.5 6.7 0.0 7.0
Moser/Olga Bay (25740,41)	29 07/21 Total	* *	0 0	0 0	0.0 0.0	0 0	0 0	0.0 0.0	0 0	0 0	0.0 0.0	0 0	0 0	0.0 0.0	12 12	130 130	10.8 10.8
Humpy/Deadman Bay (257-50,60,70)	27 07/07 29 07/21 30 07/28 31 08/04 Total	* * * * 5	0 0 1 0 1	0 0 12 0 12	0.0 0.0 12.0 0.0 12.0	8 1 10 33 52	34 9 34 194 271	4.3 9.0 3.4 5.9 5.2	0 0 0 0 0	0 0 0 0 0	0.0 0.0 0.0 0.0 0.0	0 3 1 45 49	0 8 2 138 148	0.0 2.7 2.0 3.1 3.0	0 0 0 1 1	0 0 0 8 8	0.0 0.0 0.0 8.0 8.0
Seven Rivers (258-70,80,83,85,90)	29 07/21 31 08/04 32 08/11 Total	* * * 6	0 0 0 0	0 0 0 0	0.0 0.0 0.0 0.0	26 5 0 31	90 20 0 110	3.5 4.0 0.0 3.5	0 0 0 0	0 0 0 0	0.0 0.0 0.0 0.0	0 2,798 369 3,167	0 8,242 1,107 9,349	0.0 2.9 3.0 3.0	211 8 0 219	1,640 39 0 1,679	7.8 4.9 0.0 7.7
Two-Headed (258-54,55,60)	31 08/04 32 08/11 Total	* * *	0 0 0	0 0 0	0.0 0.0 0.0	3 0 3	5 0 5	1.7 0.0 1.7	0 0 0	0 0 0	0.0 0.0 0.0	271 492 763	712 1,341 2,053	2.6 2.7 2.7	14 54 68	138 377 515	9.9 7.0 7.6
Sitkalidak (258-10,53)	29 07/21 30 07/28 31 08/04 32 08/11 33 08/18 34 08/25 Total	* * * * * * 11	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 0 0 0 0 2 2	0 0 0 0 0 11 11	0.0 0.0 0.0 0.0 0.0 5.5 5.5	0 0 0 0 0 6 6	0 0 0 0 0 29 29	0.0 0.0 0.0 0.0 0.0 4.8 4.8	0 76 362 1,399 415 221 2,473	0 217 1,024 4,323 1,403 654 7,621	0.0 2.9 2.8 3.1 3.4 3.0 3.1	341 320 279 385 251 427 2,003	2,686 2,617 2,848 2,828 1,926 2,887 15,792	7.9 8.2 10.2 7.3 7.7 6.8 7.9
Inner & Outer Ugak (259-40,41,42)	31 08/04 32 08/11 Total	* * 4	4 0 4	79 0 79	19.8 0.0 19.8	377 37 414	1,955 207 2,162	5.2 5.6 5.2	0 0 0	0 0 0	0.0 0.0 0.0	132 521 653	341 1,715 2,056	2.6 3.3 3.1	39 87 126	369 776 1,145	9.5 8.9 9.1
Outer Chiniak (259-21,25)	30 07/28 31 08/04 Total	4 * 5	0 0 0	0 0 0	0.0 0.0 0.0	399 0 399	2,009 0 2,009	5.0 0.0 5.0	0 0 0	0 0 0	0.0 0.0 0.0	248 127 375	808 344 1,152	3.3 2.7 3.1	13 1 14	140 9 149	10.8 9.0 10.6
Inner Chiniak (259-23,24)	29 07/21 30 07/28 31 08/04 32 08/11 Total	4 5 4 9 22	0 1 0 0 1	0 12 0 0 12	0.0 12.0 0.0 0.0 12.0	0 0 0 2 2	0 0 0 10 10	0.0 0.0 0.0 5.0 5.0	0 0 1 3 4	0 0 10 21 31	0.0 0.0 10.0 7.0 7.8	255 1,216 1,534 6,058 9,063	649 3,264 5,085 18,540 27,538	2.5 2.7 3.3 3.1 3.0	91 76 122 135 424	1,004 764 1,220 1,316 4,304	11.0 10.1 10.0 9.7 10.2
Buskin River (259-22)	32 08/11 Total	* *	0 0	0 0	0.0 0.0	0 0	0 0	0.0 0.0	0 0	0 0	0.0 0.0	110 110	379 379	3.4 3.4	24 24	287 287	12.0 12.0
Hallo Bay (262-20)	34 08/25 Total	* *	0 0	0 0	0.0 0.0	0 0	0 0	0.0 0.0	23 23	160 160	7.0 7.0	435 435	1,436 1,436	3.3 3.3	524 524	3,561 3,561	6.8 6.8
Dakavak (262-35,40,45,50,55)	32 08/11 Total	* *	1 1	8 8	8.0 8.0	1 1	5 5	5.0 5.0	0 0	0 0	0.0 0.0	5,645 5,645	19,322 19,322	3.4 3.4	80 80	640 640	8.0 8.0
Alinchak (262-65,70)	32 08/11 33 08/18 Total	* * *	0 0 0	0 0 0	0.0 0.0 0.0	0 0 0	0 0 0	0.0 0.0 0.0	0 0 0	0 0 0	0.0 0.0 0.0	416 3,623 4,039	1,274 11,997 13,271	3.1 3.3 3.3	16 1,512 1,528	83 11,639 11,722	5.2 7.7 7.7

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Appendix D.4. (page 3 of 3)

Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
Wide Bay (262-85)	31 08/04	*	0	0	0.0	0	0	0.0	0	0	0.0	2,143	8,663	4.0	1,996	14,549	7.3
	32 08/11	*	0	0	0.0	0	0	0.0	0	0	0.0	600	1,867	3.1	115	863	7.5
	Total	*	0	0	0.0	0	0	0.0	0	0	0.0	2,743	10,530	3.8	2,111	15,412	7.3
Beach Seine Totals		339	38	644	16.9	8,934	45,357	5.1	1,706	15,456	9.1	84,188	271,589	3.2	11,205	89,377	8.0

Appendix D.5. Commercial set gillnet caught salmon harvest by species, statistical area, and statistical week, Kodiak Management Area, 1990.

Section (Stat. Area)	Stat Week/ Week End	Lndgs	Chinook			SOCKEYE			COHO			PINK			CHUM		
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.
Set Gillnet																	
Central, Terror Bay.	23 06/09	47	14	250	17.9	6,811	36,028	5.3	2	14	7.0	11	38	3.5	134	1,107	8.3
Inner Uganik, Spiridon,	24 06/16	180	93	989	10.6	29,045	150,697	5.2	4	33	8.3	85	334	3.9	1,183	9,412	8.0
Zachar & Uyak Combined	25 06/23	130	44	503	11.4	23,089	123,114	5.3	2	24	12.0	340	1,287	3.8	3,450	25,481	7.4
(253-11,12,13,14,31,32,	26 06/30	*	0	0	0.0	54	289	5.4	0	0	0.0	0	0	0.0	8	70	8.8
33,35, 254-10,20,30,40)	27 07/07	166	100	1,006	10.1	27,503	158,544	5.8	71	484	6.8	6,820	25,808	3.8	7,772	54,103	7.0
	28 07/14	214	109	985	9.0	19,280	108,397	5.6	56	399	7.1	13,357	50,902	3.8	8,136	57,485	7.1
	29 07/21	356	112	1,227	11.0	36,550	210,170	5.8	957	7,336	7.7	41,325	150,438	3.6	9,978	71,513	7.2
	30 07/28	394	106	1,165	11.0	30,252	169,683	5.6	2,372	18,179	7.7	98,178	357,242	3.6	11,233	79,655	7.1
	31 08/04	417	136	1,733	12.7	29,318	168,225	5.7	3,762	29,462	7.8	86,477	308,932	3.6	9,868	67,583	6.8
	32 08/11	342	141	1,627	11.5	35,548	202,277	5.7	2,974	24,026	8.1	63,070	222,535	3.5	5,794	37,493	6.5
	33 08/18	449	54	499	9.2	117,556	664,750	5.7	6,199	51,040	8.2	80,790	286,204	3.5	5,389	34,489	6.4
	34 08/25	405	31	332	10.7	114,549	648,785	5.7	6,322	53,027	8.4	75,061	268,019	3.6	3,221	20,458	6.4
	35 09/01	490	54	617	11.4	106,208	605,194	5.7	11,683	98,874	8.5	38,627	139,006	3.6	2,161	13,759	6.4
	36 09/08	172	31	333	10.7	25,634	145,149	5.7	2,859	25,110	8.8	1,973	7,325	3.7	536	3,368	6.3
	37 09/15	137	47	483	10.3	11,528	63,731	5.5	1,360	11,874	8.7	105	372	3.5	177	1,062	6.0
	38 09/22	7	3	26	8.7	1,361	7,575	5.6	31	248	8.0	0	0	0.0	9	58	6.4
Total		3,905	1,075	11,775	11.0	614,286	3,462,608	5.6	38,654	320,130	8.3	506,219	1,818,442	3.6	69,049	477,116	6.9
North Cape, Anton Larson,	23 06/09	*	0	0	0.0	34	181	5.3	0	0	0.0	0	0	0.0	0	0	0.0
Sheratin, & Kizhuyak	24 06/16	13	1	30	30.0	1,455	6,645	4.6	0	0	0.0	20	69	3.5	70	489	7.0
Combined	25 06/23	7	0	0	0.0	454	2,070	4.6	0	0	0.0	31	109	3.5	50	351	7.0
(259-36,37,38,39)	27 07/07	16	1	51	51.0	1,395	7,572	5.4	40	260	6.5	418	1,399	3.3	312	2,144	6.9
	28 07/14	13	0	0	0.0	978	5,503	5.6	59	342	5.8	657	2,210	3.4	265	1,976	7.5
	29 07/21	34	0	0	0.0	1,657	9,423	5.7	276	1,751	6.3	2,532	8,185	3.2	775	5,959	7.7
	30 07/28	22	1	25	25.0	754	4,254	5.6	104	600	5.8	3,135	10,088	3.2	822	5,743	7.0
	31 08/04	34	0	0	0.0	584	3,152	5.4	103	651	6.3	5,839	18,887	3.2	1,277	9,091	7.1
	32 08/11	30	0	0	0.0	262	1,549	5.9	143	1,004	7.0	4,703	16,244	3.5	1,121	7,606	6.8
	33 08/18	27	0	0	0.0	335	1,850	5.5	421	2,945	7.0	3,805	12,685	3.3	1,404	8,634	6.1
	34 08/25	16	0	0	0.0	588	3,115	5.3	441	3,285	7.4	1,729	5,745	3.3	856	4,935	5.8
	35 09/01	12	0	0	0.0	1,619	8,612	5.3	1,158	9,037	7.8	896	3,049	3.4	673	3,831	5.7
	36 09/08	*	0	0	0.0	0	0	0.0	115	859	7.5	0	0	0.0	0	0	0.0
Total		228	3	106	35.3	10,115	53,926	5.3	2,860	20,734	7.2	23,765	78,670	3.3	7,625	50,759	6.7
Moser/Olga Bay (25740,41)	23 06/09	41	6	145	24.2	13,154	62,710	4.8	0	0	0.0	0	0	0.0	45	417	9.3
	24 06/16	190	15	337	22.5	51,262	241,861	4.7	1	13	13.0	1	3	3.0	259	2,367	9.1
	25 06/23	44	1	20	20.0	17,611	83,778	4.8	0	0	0.0	0	0	0.0	138	1,250	9.1
	26 06/30	450	60	1,307	21.8	164,793	774,517	4.7	14	112	8.0	2	6	3.0	3,680	34,871	9.5
	27 07/07	397	23	507	22.0	95,236	439,776	4.6	14	101	7.2	35	141	4.0	3,597	33,493	9.3
	28 07/14	326	11	213	19.4	49,068	230,939	4.7	42	323	7.7	139	464	3.3	2,246	19,628	8.7
	29 07/21	167	0	0	0.0	31,168	159,382	5.1	27	226	8.4	286	1,012	3.5	534	4,055	7.6
	30 07/28	204	13	175	13.5	64,458	331,106	5.1	127	1,118	8.8	1,928	6,920	3.6	1,668	13,998	8.4
	31 08/04	362	5	107	21.4	72,248	402,739	5.6	248	2,197	8.9	3,906	14,094	3.6	1,142	8,966	7.9
	32 08/11	237	4	48	12.0	58,104	328,809	5.7	553	5,232	9.5	6,933	25,030	3.6	951	7,095	7.5
	33 08/18	134	0	0	0.0	25,018	140,268	5.6	1,473	14,778	10.0	3,706	13,441	3.6	783	5,784	7.4
	34 08/25	129	0	0	0.0	39,843	219,662	5.5	1,309	12,965	9.9	1,386	4,748	3.4	857	5,650	6.6
	35 09/01	230	1	9	9.0	36,173	197,803	5.5	4,745	46,799	9.9	690	2,369	3.4	1,538	10,232	6.7
	36 09/08	107	0	0	0.0	13,174	71,661	5.4	2,190	21,849	10.0	58	236	4.1	571	3,536	6.2
	37 09/15	32	0	0	0.0	3,240	17,979	5.5	945	9,069	9.6	3	10	3.3	183	1,197	6.5
	38 09/22	5	0	0	0.0	793	4,340	5.5	132	1,227	9.3	0	0	0.0	13	83	6.4
Total		3,053	139	2,868	20.6	735,343	3,707,330	5.0	11,820	116,009	9.8	19,073	68,474	3.6	18,205	152,622	8.4
Inner & Outer Akalura (257-30)	33 08/18	39	1	19	19.0	9,300	52,424	5.6	56	557	9.9	176	635	3.6	16	155	9.7
Total		39	1	19	19.0	9,300	52,424	5.6	56	557	9.9	176	635	3.6	16	155	9.7
Set Gillnet Totals		7,225	1,218	14,768	12.1	1,369,044	7,276,288	5.3	53,390	457,430	8.6	549,233	1,966,221	3.6	94,895	680,652	7.2

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Appendix D.5. (page 2 of 2)

Section (Stat. Area)	Stat Week/ Week End	Lnogs	Chinook			SOCKEYE			COHO			PINK			CHUM			
			#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	#	Lbs.	Avg.	
Test Fish																		
Moser/Olga Bay (25740,41)	22 06/02	*	0	0	0.0	19	102	5.4	0	0	0.0	0	0	0.0	0	0	0.0	
	23 06/09	*	0	0	0.0	171	867	5.1	0	0	0.0	0	0	0.0	1	6	6.0	
	24 06/16	*	0	0	0.0	237	1,187	5.0	0	0	0.0	0	0	0.0	0	0	0.0	
	25 06/23	5	0	0	0.0	335	1,592	4.8	0	0	0.0	0	0	0.0	0	0	0.0	
	26 06/30	*	0	0	0.0	45	249	5.5	0	0	0.0	0	0	0.0	0	0	0.0	
	27 07/07	*	0	0	0.0	31	145	4.7	0	0	0.0	0	0	0.0	1	12	12.0	
	Total		17	0	0	0.0	838	4,142	4.9	0	0	0.0	0	0	0.0	2	18	9.0
Test Fish Totals			17	0	0	0.0	838	4,142	4.9	0	0	0.0	0	0	0.0	2	18	9.0

Appendix D.6. Historic salmon harvest for the Alitak Bay District by species, Kodiak Management Area, June 1 - October 10, 1990.

Year	Chinook	Sockeye	Coho	Pink	Chum
1970	8	81,544	4,540	949,871	93,320
1971	4	12,798	1,209	100,896	66,947
1972	15	22,127	1,289	188,477	95,135
1973	4	10,338	125	49,932	24,408
1974	19	67,743	1,284	355,154	23,939
1975	0	16,498	1,627	235,711	2,853
1976	18	97,015	3,535	1,826,482	68,132
1977	20	78,812	1,343	961,673	70,969
1978	694	218,301	2,788	4,191,756	72,166
1979	108	317,260	15,007	1,664,410	22,462
1980	33	197,928	13,120	2,052,273	67,641
1981	45	346,073	17,011	2,073,629	61,513
1982	43	476,862	29,378	519,880	101,543
1983	159	460,087	28,947	1,428,526	107,786
1984	290	382,729	25,299	433,806	84,924
1985	199	703,235	43,914	1,057,940	84,760
1986	134	1,247,976	30,548	728,205	75,643
1987	105	515,484	17,960	916,883	59,727
1988	624	1,124,073	30,001	385,735	93,401
1989	106	1,286,022	1,613	182,230	19,919
1990	807	1,436,292	18,176	144,927	50,306

Appendix D.7. Commercial salmon harvest by number of fish and percentage of total by species, Kodiak management Area, 1969-1990.

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Year	Gear Type ^a	Chinook		Sockeye		Coho		Pink		Chum		Total	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1969	01	2,354	.95	397,572	.67	47,071	.97	11,994,626	.96	511,551	.96	12,953,174	.95
	02	53	.02	8,173	.02	182	.01	20,913	.01	299	.01	29,620	.01
	04	62	.03	185,736	.31	1,506	.03	485,284	.04	23,083	.04	695,671	.05
	TOTAL	2,469	1.00	591,481	1.00	48,759	1.00	1,500,823	1.00	534,933	1.00	13,678,465	1.00
1970	01	1,003	.92	781,054	.85	59,722	.90	11,176,353	.93	860,771	.94	12,878,903	.92
	02	49	.05	7,661	.01	970	.01	127,259	.01	3,500	.01	139,439	.01
	04	37	.03	128,330	.14	5,729	.09	741,937	.06	54,831	.06	930,864	.07
	TOTAL	1,089	1.00	917,045	1.00	66,421	1.00	12,045,549	1.00	919,102	1.00	13,949,206	1.00
1971	01	837	.91	366,739	.76	19,140	.84	4,010,855	.84	1,471,637	.96	4,869,208	.92
	02	1	.01	1,136	.01	133	.01	63,675	.01	5,972	.01	70,917	.01
	04	82	.09	110,604	.23	3,571	.16	259,962	.06	63,835	.04	438,054	.07
	TOTAL	920	1.00	478,479	1.00	22,844	1.00	4,334,492	1.00	1,541,444	1.00	6,378,179	1.00
1972	01	1,232	.95	175,484	.79	14,017	.85	2,273,852	.92	1,084,685	.93	3,549,270	.91
	02	3	.01	2,325	.01	53	.01	31,800	.01	6,657	.01	40,838	.01
	04	65	.01	44,991	.20	2,518	.15	173,085	.07	72,430	.06	293,089	.08
	TOTAL	1,300	1.00	222,800	1.00	16,588	1.00	2,478,737	1.00	1,163,772	1.00	3,883,197	1.00
1973	01	780	.98	139,017	.83	3,171	.89	431,749	.85	303,694	.96	878,411	.88
	02	2	.01	476	.01	6	.01	7,190	.01	907	.01	8,581	.01
	04	18	.02	27,848	.17	396	.11	72,769	.14	13,320	.04	114,351	.11
	TOTAL	800	1.00	167,341	1.00	3,573	1.00	511,708	1.00	317,921	1.00	1,001,343	1.00
1974	01	405	.74	346,237	.83	12,664	.93	2,395,212	.91	235,248	.94	2,989,766	.90
	02	1	.01	2,200	.01	9	.01	32,302	.01	632	.01	35,144	.01
	04	139	.26	70,324	.17	958	.07	219,682	.08	13,414	.05	304,517	.09
	TOTAL	545	1.00	418,761	1.00	13,631	1.00	2,647,196	1.00	249,294	1.00	3,329,427	1.00
1975	01	89	.88	75,041	.55	18,547	.78	2,663,539	.91	73,109	.87	2,830,325	.89
	02	2	.02	749	.01	4,269	.18	34,842	.01	280	.01	40,142	.01
	04	10	.10	60,628	.44	843	.04	244,420	.08	11,042	.13	316,943	.10
	TOTAL	101	1.00	136,418	1.00	23,659	1.00	2,942,801	1.00	84,431	1.00	3,187,410	1.00
1976	01	704	.92	484,912	.76	16,716	.71	9,712,179	.88	706,773	.95	10,921,284	.88
	02	8	.01	1,721	.01	3,859	.16	149,371	.01	3,479	.01	158,438	.01
	04	54	.07	154,851	.24	3,139	.13	1,216,442	.11	30,243	.04	1,404,729	.11
	TOTAL	766	1.00	641,484	1.00	23,714	1.00	11,077,992	1.00	740,495	1.00	12,484,451	1.00

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Appendix D.7. (page 2 of 3)

Year	Gear Type ^a	Chinook		Sockeye		Coho		Pink		Chum		Total	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1977	01	528	.90	409,016	.66	19,115	.69	5,245,137	.84	1,023,513	.95	6,697,309	.84
	02	3	.01	1,279	.01	5,995	.21	126,827	.02	10,017	.01	144,121	.02
	04	54	.09	213,173	.34	2,810	.10	880,441	.14	38,783	.04	1,135,261	.14
	TOTAL	585	1.00	623,468	1.00	27,920	1.00	6,252,405	1.00	1,072,313	1.00	7,976,691	1.00
1978	01	2,625	.81	803,608	.75	35,443	.73	13,259,413	.88	754,933	.93	14,856,022	.87
	02	38	.01	7,418	.01	9,513	.20	224,209	.02	9,467	.01	250,645	.02
	04	565	.18	260,756	.24	3,839	.07	1,520,443	.10	49,945	.06	1,835,548	.11
	TOTAL	3,228	1.00	1,071,782	1.00	48,795	1.00	15,004,065	1.00	814,345	1.00	16,942,215	1.00
1979	01	1,708	.90	355,513	.56	102,184	.73	9,995,862	.89	319,109	.89	10,774,376	.87
	02	13	.01	7,407	.01	12,821	.09	279,661	.02	4,183	.01	304,085	.02
	04	184	.09	268,815	.43	25,624	.18	1,012,068	.09	35,108	.09	1,341,799	.11
	TOTAL	1,905	1.00	631,735	1.00	140,629	1.00	11,287,591	1.00	358,400	1.00	12,420,260	1.00
1980	01	266	.50	385,999	.59	113,027	.82	15,346,820	.89	987,685	.92	16,833,797	.87
	02	6	.01	4,086	.01	13,058	.09	535,559	.03	23,679	.02	576,388	.03
	04	257	.49	261,309	.40	13,069	.09	1,408,236	.08	64,193	.06	1,747,064	.10
	TOTAL	529	1.00	651,394	1.00	139,154	1.00	17,290,615	1.00	1,075,557	1.00	19,157,249	1.00
1981	01	1,150	.81	847,281	.66	93,514	.77	8,330,252	.81	1,212,509	.90	10,484,706	.80
	02	23	.02	6,768	.01	12,713	.10	385,524	.04	11,091	.01	416,119	.03
	04	245	.17	434,931	.33	15,317	.13	1,621,053	.15	121,728	.09	2,193,274	.17
	TOTAL	1,418	1.00	1,288,980	1.00	121,544	1.00	10,336,829	1.00	1,345,328	1.00	13,094,099	1.00
1982	01	919	.74	588,355	.49	290,565	.85	6,595,164	.82	1,080,175	.85	8,555,178	.79
	02	7	.01	9,142	.01	18,711	.05	169,082	.02	17,666	.02	214,608	.02
	04	312	.25	607,296	.50	34,255	.10	1,311,957	.16	168,346	.13	2,122,166	.19
	TOTAL	1,238	1.00	1,204,793	1.00	343,531	1.00	8,076,203	1.00	1,266,187	1.00	10,891,952	1.00
1983	01	3,096	.80	782,719	.63	128,655	.81	3,887,6781	.84	964,581	.89	5,766,722	.81
	02	22	.01	3,929	.01	4,306	.03	125,629	.03	7,267	.01	141,153	.02
	04	721	.19	445,341	.36	24,651	.16	590,071	.13	113,317	.10	1,174,101	.17
	TOTAL	3,839	1.00	1,231,989	1.00	157,612	1.00	4,603,371	1.00	1,085,165	1.00	7,081,976	1.00
1984	01	3,926	.84	1,507,840	.77	198,665	.87	9,230,010	.85	563,659	.87	11,504,100	.84
	02	32	.01	8,524	.01	6,836	.03	186,459	.02	10,931	.02	212,782	.02
	04	699	.15	434,075	.22	24,023	.10	1,427,824	.13	74,502	.11	1,961,123	.14
	TOTAL	4,657	1.00	1,950,439	1.00	229,524	1.00	10,844,293	1.00	649,092	1.00	13,678,005	1.00

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Appendix D.7. (page 3 of 3)

Year	Gear ^a Type	Chinook		Sockeye		Coho		Pink		Chum		Total	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1985	01	4,528	.91	1,195,010	.64	245,987	.86	6,407,842	.87	336,077	.78	8,189,444	.83
	02	23	.01	3,762	.01	4,317	.02	137,018	.02	2,590	.01	147,710	.01
	04	419	.08	644,413	.35	33,862	.12	789,965	.11	92,090	.21	1,560,749	.16
	TOTAL	4,970	1.00	1,843,185	1.00	284,166	1.00	7,334,825	1.00	430,757	1.00	9,897,903	1.00
1986	01	4,042	.92	2,010,828	.63	134,509	.80	9,580,094	.82	972,383	.85	12,701,856	.78
	02	21	.01	1,989	.01	1,744	.01	172,986	.01	5,673	.01	182,413	.01
	04	318	.07	1,175,452	.37	32,420	.19	2,055,195	.17	156,502	.14	3,419,887	.21
	TOTAL	4,381	1.00	3,188,269	1.00	168,773	1.00	11,808,275	1.00	1,134,558	1.00	16,304,165	1.00
1987 ^b	01	4,379	.95	1,248,368	.70	160,403	.83	4,228,900	.83	542,009	.79	6,184,019	.80
	02	4	.01	1,582	.01	3,703	.02	135,638	.03	9,462	.01	150,389	.02
	04	229	.05	542,360	.30	28,327	.15	555,753	.11	129,482	.19	1,256,151	.16
	TOTAL	4,612	1.00	1,792,819	1.00	192,540	1.00	5,075,027	1.00	681,982	1.00	7,746,980	1.00
1988 ^b	01	21,167	.95	1,839,153	.68	266,446	.88	11,948,730	.82	1,220,405	.85	15,295,901	.80
	02	75	<.01	2,075	<.01	860	<.01	234,258	.02	21,805	.02	259,073	.01
	04	1,132	.05	856,744	.32	35,961	.12	2,079,367	.14	184,190	.13	3,157,394	.17
	99	0	.00	66	<.01	31	<.01	296,683	.02	0	.00	296,780	.02
	TOTAL	22,374	1.00	2,698,637	1.00	303,298	1.00	14,559,038	1.00	1,426,410	1.00	19,009,757	1.00
1989 ^c	TOTAL	4,850		2,529,068		146,433		16,597,269		765,680		20,038,250	
1990 ^b	01	17,550	.93	3,869,588	.74	238,723	.81	5,350,391	.89	471,641	.82	9,947,893	.82
	02	38	.01	8,934	<.01	1,706	.01	84,188	.02	11,205	.02	106,071	.01
	04	1,218	.06	1,369,044	.26	53,390	.18	549,233	.09	94,895	.16	2,067,780	.17
	99	0	.00	838	<.01	0	.00	0	.00	2	<.01	840	<.01
	TOTAL	18,806	1.00	5,248,404	1.00	293,819	1.00	6,000,805	1.00	577,743	1.00	12,122,584	1.00

^a Gear Description: 01-purse seine, 02-beach seine, 04-set gillnet, 99-see footnote 2.

^b Total figures include harvests at Kitoi Bay hatchery for Cost Recovery purposes, fish caught in test fisheries and forfeitures due to illegal fishing (approximately 2% of the total harvest).

^c Harvest data does not include the Kitoi Bay catch of approximately 6,437,666 fish. These harvest numbers are estimates by ADF&G of what the actual commercial harvest would have been had there not been major fishery restrictions caused by the M/V Exxon Valdez oil spill. Sockeye harvest data does not include an additional 4,880 Chignik River sockeye salmon which would have been caught in the Cape Igvak fishery pre-July 26 or any other interception fish which may have been harvested in the course of conducting normal Kodiak Management Area fisheries. Set gillnet gear harvested approximately 100% of the actual commercial harvest which occurred. The vast majority of the Kodiak Area was closed to commercial salmon fishing due to the presence of oil from the Exxon Valdez spill.

Appendix E.1. Tide tables for the Kodiak Management Area, 1990.

HIGH Tides KODIAK District

JUNE 1990

DATE	DAY	DOTS	GLIDE	TIME	AM	PM	TIME	AM	PM
1	Fri	•	9:20	6.0	10:09	7.6			
2	Sat	•	10:37	5.6	10:55	7.9			
3	SUN	•	11:50	5.6	11:37	8.2			
4	Mon	•	•	•	12:47	5.7			
5	Tues	•	0:15	8.4	1:37	5.9			
6	Wed	•	0:52	8.7	2:20	6.1			
7	Thur	•	1:29	8.9	3:00	6.3			
8	Fri	•	2:06	9.0	3:38	6.4			
9	Sat	•	2:42	9.1	4:12	6.5			
10	SUN	•	3:15	9.0	4:49	6.5			
11	Mon	•	3:53	8.8	5:27	6.6			
12	Tues	•	4:28	8.5	6:03	6.7			
13	Wed	•	5:07	8.1	6:41	6.8			
14	Thur	•	5:56	7.5	7:20	7.1			
15	Fri	•	6:51	6.9	8:05	7.5			
16	Sat	•	8:00	6.2	8:54	7.9			
17	SUN	•	9:22	5.7	9:47	8.4			
18	Mon	•	10:50	5.6	10:40	9.0			
19	Tues	•	12:07	5.8	11:36	9.6			
20	Wed	•	•	•	1:13	6.2			
21	Thur	•	0:31	10.1	2:12	6.6			
22	Fri	•	1:27	10.5	3:01	7.0			
23	Sat	•	2:19	10.6	3:50	7.3			
24	SUN	•	3:11	10.5	4:35	7.5			
25	Mon	•	3:57	10.0	5:21	7.6			
26	Tues	•	4:47	9.3	6:03	7.7			
27	Wed	•	5:37	8.4	6:48	7.8			
28	Thur	•	6:30	7.4	7:33	7.7			
29	Fri	•	7:26	6.4	8:16	7.7			
30	Sat	•	8:34	5.5	9:05	7.7			

• BIGGER THE DOT - BETTER THE FISHING

LOW Tides KODIAK District

JUNE 1990

DATE	DAY	DOTS	GLIDE	TIME	AM	PM	TIME	AM	PM
1	Fri	•	3:31	2.4	3:23	1.5			
2	Sat	•	4:43	1.8	4:14	2.1			
3	SUN	•	5:43	1.2	5:03	2.5			
4	Mon	•	6:31	0.5	5:52	2.7			
5	Tues	•	7:13	-0.1	6:34	2.9			
6	Wed	•	7:52	-0.5	7:16	2.9			
7	Thur	•	8:30	-0.9	7:55	2.9			
8	Fri	•	9:05	-1.1	8:30	2.9			
9	Sat	•	9:40	-1.2	9:12	2.9			
10	SUN	•	10:15	-1.2	9:48	2.9			
11	Mon	•	10:51	-1.1	10:30	3.0			
12	Tues	•	11:26	-0.8	11:13	3.0			
13	Wed	•	•	•	12:02	-0.6			
14	Thur	•	0:06	2.9	12:41	0.0			
15	Fri	•	1:07	2.7	1:23	0.5			
16	Sat	•	2:13	2.3	2:09	1.1			
17	SUN	•	3:27	1.6	3:03	1.7			
18	Mon	•	4:40	0.7	4:01	2.2			
19	Tues	•	5:45	-0.3	5:06	2.5			
20	Wed	•	6:44	-1.3	6:07	2.5			
21	Thur	•	7:40	-2.1	7:08	2.4			
22	Fri	•	8:31	-2.6	8:04	2.2			
23	Sat	•	9:20	-2.7	8:57	2.1			
24	SUN	•	10:06	-2.6	9:50	2.0			
25	Mon	•	10:49	-2.2	10:44	1.9			
26	Tues	•	11:32	-1.5	11:39	2.0			
27	Wed	•	•	•	12:12	-0.7			
28	Thur	•	0:35	2.1	12:53	0.2			
29	Fri	•	1:39	2.1	1:31	1.1			
30	Sat	•	2:45	2.0	2:13	1.9			

ALASKA DAYLIGHT TIME

HIGH Tides KODIAK District

JULY 1990

DATE	DAY	DOTS	GLIDE	TIME	AM	PM	TIME	AM	PM
1	SUN	•	9:55	5.0	9:56	7.8			
2	Mon	•	11:20	4.9	10:45	7.9			
3	Tues	•	12:34	5.1	11:35	8.1			
4	Wed	•	•	•	1:27	5.4			
5	Thur	•	0:24	8.4	2:09	5.8			
6	Fri	•	1:06	8.7	2:47	6.1			
7	Sat	•	1:48	9.0	3:19	6.4			
8	SUN	•	2:25	9.1	3:51	6.7			
9	Mon	•	3:02	9.2	4:23	7.0			
10	Tues	•	3:38	9.0	4:55	7.3			
11	Wed	•	4:16	8.7	5:27	7.5			
12	Thur	•	4:55	8.2	6:01	7.8			
13	Fri	•	5:41	7.5	6:38	8.0			
14	Sat	•	6:33	6.7	7:16	8.3			
15	SUN	•	7:39	5.9	8:05	8.5			
16	Mon	•	9:01	5.2	9:03	8.7			
17	Tues	•	10:40	5.1	10:11	9.0			
18	Wed	•	12:07	5.4	11:20	9.4			
19	Thur	•	•	•	1:11	5.9			
20	Fri	•	0:23	9.8	2:04	6.5			
21	Sat	•	1:21	10.1	2:49	7.1			
22	SUN	•	2:13	10.3	3:31	7.6			
23	Mon	•	3:00	10.1	4:10	7.9			
24	Tues	•	3:46	9.7	4:47	8.2			
25	Wed	•	4:31	9.0	5:24	8.3			
26	Thur	•	5:15	8.1	6:01	8.2			
27	Fri	•	6:00	7.1	6:35	8.1			
28	Sat	•	6:49	6.2	7:15	7.9			
29	SUN	•	7:47	5.3	8:00	7.6			
30	Mon	•	9:06	4.7	8:53	7.5			
31	Tues	•	10:48	4.5	9:57	7.5			

• BIGGER THE DOT - BETTER THE FISHING

LOW Tides KODIAK District

JULY 1990

DATE	DAY	DOTS	GLIDE	TIME	AM	PM	TIME	AM	PM
1	SUN	•	3:59	1.7	3:05	2.6			
2	Mon	•	5:06	1.3	3:58	3.1			
3	Tues	•	6:05	0.8	4:59	3.4			
4	Wed	•	6:52	0.2	5:58	3.4			
5	Thur	•	7:36	-0.3	6:47	3.3			
6	Fri	•	8:12	-0.7	7:37	3.1			
7	Sat	•	8:47	-1.1	8:17	2.8			
8	SUN	•	9:22	-1.3	8:58	2.6			
9	Mon	•	9:54	-1.4	9:38	2.4			
10	Tues	•	10:27	-1.3	10:17	2.2			
11	Wed	•	10:57	-1.0	11:02	1.9			
12	Thur	•	11:27	-0.6	11:50	1.8			
13	Fri	•	•	•	12:04	0.0			
14	Sat	•	0:43	1.6	12:41	0.7			
15	SUN	•	1:49	1.3	1:23	1.5			
16	Mon	•	3:01	1.0	2:16	2.2			
17	Tues	•	4:20	0.4	3:25	2.8			
18	Wed	•	5:33	-0.3	4:44	3.1			
19	Thur	•	6:39	-1.1	5:57	2.9			
20	Fri	•	7:33	-1.7	7:03	2.5			
21	Sat	•	8:20	-2.2	8:01	2.1			
22	SUN	•	9:04	-2.3	8:54	1.6			
23	Mon	•	9:45	-2.1	9:40	1.3			
24	Tues	•	10:22	-1.7	10:28	1.2			
25	Wed	•	10:57	-1.0	11:35	1.2			
26	Thur	•	11:32	-0.2	•	•			
27	Fri	•	0:01	1.3	12:04	0.6			
28	Sat	•	0:53	1.5	12:35	1.5			
29	SUN	•	1:52	1.6	1:10	2.3			
30	Mon	•	3:01	1.7	1:55	3.0			
31	Tues	•	4:21	1.5	2:54	3.6			

ALASKA DAYLIGHT TIME

HIGH Tides KODIAK District

AUGUST 1990

DATE	DAY	DOTS	GLIDE	TIME	AM	PM	TIME	AM	PM
1	Wed	•	12:15	4.8	11:03	7.7			
2	Thur	•	1:08	5.2	11:59	8.1			
3	Fri	•	•	•	1:47	5.7			
4	Sat	•	0:47	8.5	2:19	6.3			
5	SUN	•	1:29	8.9	2:49	6.8			
6	Mon	•	2:09	9.1	3:19	7.3			
7	Tues	•	2:48	9.2	3:47	7.7			
8	Wed	•	3:26	9.1	4:15	8.1			
9	Thur	•	4:04	8.8	4:45	8.5			
10	Fri	•	4:46	8.2	5:16	8.7			
11	Sat	•	5:31	7.4	5:53	8.8			
12	SUN	•	6:24	6.5	6:35	8.8			
13	Mon	•	7:30	5.6	7:28	8.7			
14	Tues	•	8:58	5.0	8:37	8.5			
15	Wed	•	10:48	5.0	9:55	8.5			
16	Thur	•	12:07	5.5	11:15	8.8			
17	Fri	•	•	•	1:05	6.2			
18	Sat	•	0:21	9.2	1:48	6.9			
19	SUN	•	1:16	9.5	2:27	7.5			
20	Mon	•	2:06	9.6	3:02	8.1			
21	Tues	•	2:50	9.5	3:36	8.5			
22	Wed	•	3:32	9.1	4:06	8.7			
23	Thur	•	4:12	8.5	4:38	8.7			
24	Fri	•	4:53	7.7	5:08	8.5			
25	Sat	•	5						

KODIAK AREA

CHAPTER 18.—KODIAK AREA

ARTICLE 1.—DESCRIPTION OF AREA

5 AAC 18.001. APPLICATION OF THIS CHAPTER. Requirements set forth in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set forth in the subsistence fishing regulations in chs. 1 and 2 of this title.

5 AAC 18.100. DESCRIPTION OF AREA. The Kodiak Area includes all waters of Alaska south of a line extending east from Cape Douglas (58°52' N.lat.), west of 150° W.long., north of 55°30' N.lat.; and east of a line extending south from the southern entrance of Imuya Bay near Kilokak Rocks (156°20'13" W.long.).

ARTICLE 2.—FISHING DISTRICTS

5 AAC 18.200. DESCRIPTION OF DISTRICTS AND SECTIONS. (a) Afognak District: all waters of Afognak and Shuyak Islands bounded by a line from Occident Point (57°57'25" N. lat., 152°51'30" W. long.), to Last Timber Point (57°58'50" N. lat., 152°58'55" W. long.), by the latitude of Dolphin Point on Whale Island (57°59'10" N. lat.), by the latitude of Raspberry Cape (58°03'35" N. lat.), by mid-stream Shelikof Straits, and by the latitude of Cape Douglas (58°52' N. lat.);

(1) Raspberry Straits Section: all waters of Raspberry Straits bounded by the longitude of Dolphin Point on Afognak Island (153°09' W. long.) and by a line from Head Point to Dolphin Point on Whale Island and a line from Occident Point to Last Timber Point;

(2) Southwest Afognak Section: all waters west of Afognak Island bounded by the latitude of Raspberry Cape, the longitude of Dolphin Point on Afognak Island (153°09' W. long.) in Raspberry Straits, by the latitude of Cape Paramanof (58°18'20" N. lat.), and by mid-stream Shelikof Strait;

(3) Northwest Afognak Section: all waters northwest of Afognak Island bounded by the latitude of Cape Paramanof, by a line extending along mid-stream Shuyak Straits and perpendicular to mid-stream Shelikof Strait to Cape Current (58°27'40" N. lat., 159°29'10" W. long.), and by mid-stream Shelikof Strait;

(4) Shuyak Island Section: all waters in the vicinity of Shuyak Island bounded by a line extending along mid-stream Shuyak Straits and perpendicular to mid-stream Shelikof Straits to Cape Current, north of a line from Cape Current to Posliedni Point (58°26' N. lat., 152°19'30" W. long.), west of the longitude of Posliedni Point, south of the latitude of Cape Douglas, and by mid-stream Shelikof Strait;

(5) Perenos Bay Section: all waters of Perenos Bay south of a line extending from Cape Current to Posliedni Point;

(6) Northeast Afognak Section: all waters northeast of Afognak Island bounded by the longitude of Posliedni Point and by the latitude of Pillar Cape (58°09' N. lat.);

KODIAK AREA

(7) Izhet Bay Section: all waters of Izhet Bay, excluding the Kitoi Bay Section, bounded by a line from Pillar Cape to Peril Cape (58°07'30" N. lat., 152°16'20" W. long.);

(8) Kitoi Bay Section: all waters of Kitoi Bay bounded by a line from 58°10'39" N. lat., 152°17'13" W. long. to 58°09'32" N. lat., 152°18'36" W. long.;

(9) Duck Bay Section: all waters of Duck Bay bounded by the latitude of Pillar Cape, by a line from Pillar Cape to Peril Cape, and by the latitude of Cape Kostromitino (58°05'05" N. lat.).

(b) Northwest Kodiak District: all waters of north and west Kodiak Island bounded by the latitude of Termination Point (57°51'15" N. lat.), by the latitude of Dolphin Point on Whale Island (57°59'10" N. lat.), by a line from Occident Point (57°57'25" N. lat., 152°51'30" W. long.) to Last Timber Point (57°58'50" N. lat., 152°58'55" W. long.), by the latitude of Raspberry Cape (58°03'35" N. lat.), by the latitude of Rocky Point (57°39'45" N. lat.), and by mid-stream Shelikof Strait;

(1) Anton Larsen Bay Section: all waters of Anton Larsen Bay south of 57°52'18" N. lat.;

(2) Sheratin Bay Section: all waters of Sheratin Bay south of 57°51'09" N. lat.;

(3) Kizhuyak Bay Section: all waters of Kizhuyak Bay south of 57°50' N. lat.;

(4) Terror Bay Section: all waters of Terror Bay and Uganik Bay passages south of 57°50' N. lat., and east of 153°12'36" W. long.;

(5) Inner Uganik Bay Section: all waters of the South and East Arms of Uganik Bay south of the latitude of Rock Point (57°46'32" N. lat.);

(6) Spiridon Bay Section: all waters of Spiridon Bay east of the longitude of Hook Point (153°46'30" W. long.);

(7) Zachar Bay Section: all waters of Zachar Bay east of a line from Carlsen Point at 57°34'48" N. lat., 153°50' W. long., to a point on the opposite shore at 57°35'42" N. lat., 153°49'12" W. long.;

(8) Uyak Bay Section: all waters of Inner Uyak Bay south of the latitude of the southernmost tip of Amook Island (57°25'45" N. lat., 153°49'51" W. long.) to the west shore, and south of the latitude of the northernmost tip of Amook Island (56°59'44" N. lat., 154°01'42" W. long.) to the east shore;

(9) Central Section: all waters of the Northwest Kodiak District bounded by a line from Termination Point (57°51'15" N. lat., 152°24' W. long.) to South Point (57°53'10" N. lat., 152°22' W. long.), to Ouzinkie Point (57°54'50" N. lat., 152°31'09" W. long.), to Shakmanof Point (57°55'30" N. lat., 152°35'15" W. long.), to a point at 57°54'12" N. lat. on the east shore of Kizhuyak Bay; north of 57°52'18" N. lat. in Anton Larsen Bay; north of 57°51'09" N. lat. in Sheratin Bay; north of 57°50' N. lat., and south of the latitude of Inner Point (57°54'06" N. lat.) in Kizhuyak Bay; west of a line from

KODIAK AREA

Inner Point (57°54'06" N. lat., 152°47'40" W. long.) to Bird Point (57°55'20" N. lat., 152°47'25" W. long.); south of a line from Occident Point (57°57'25" N. lat., 152°51'30" W. long.) to Last Timber Point (57°58'50" N. lat., 152°58'58" W. long.); south of the latitude of Raspberry Cape (58°03'35" N. lat.); north of 57°50' N. lat., and west of 153°12'36" W. long. in Terror Bay and Uganik Bay passages; north of the latitude of Rock Point (57°46'32" N. lat.) in the South and East Arms of Uganik Bay; west of the longitude of Hook Point (153°46'30" W. long.) in Spiridon Bay; west of a line from Carlsen Point (57°34'48" N. lat., 153°50' W. long.) to 57°35'42" N. lat., 153°49'12" W. long. in Zachar Bay; all waters of Inner Uyak Bay north of the latitude of the southernmost tip of Amook Island to the west shore, and north of the latitude of the northernmost tip of Amook Island to the east shore; east of the latitude of Rocky Point (57°39'45" N. lat.); and by mid-stream Shelikof Strait;

(10) North Cape Section: all other waters of the Northwest Kodiak District.

(c) Southwest Kodiak District: all waters southwest of Kodiak Island bounded by the latitudes of Rocky Point (57°39'45" N. lat.) and Low Cape (56°59'35" N. lat.), and by mid-stream Shelikof Strait;

(1) Outer Karluk Section: all waters west of Kodiak Island bounded by the latitude of Rocky Point, the latitude of Pafco Point (57°38'20" N. lat.), and by mid-stream Shelikof Strait;

(2) Inner Karluk Section: all waters west of Kodiak Island bounded by the latitude of Pafco Point, the latitude of Cape Karluk (57°34'42" N. lat., 154°30'54" W. long.), and by mid-stream Shelikof Strait;

(3) Sturgeon Section: all waters southwest of Kodiak Island bounded by the latitude of Cape Karluk, the latitude of Sturgeon Head (57°30'40" N. lat., 154°37'20" W. long.), and by mid-stream Shelikof Strait;

(4) Halibut Bay Section: all waters southwest of Kodiak Island bounded by the latitude of Sturgeon Head, the latitude of Cape Ikolik (57°17'26" N. lat., 154°47'20" W. long.) and by mid-stream Shelikof Strait;

(5) Outer Ayakulik Section: all waters southwest of Kodiak Island bounded by the latitude of Cape Ikolik, the longitude of Old Red River (stream No. 256-202) (154°37'12" W. long.), and by mid-stream Shelikof Strait;

(6) Inner Ayakulik Section: all waters southwest of Kodiak Island bounded by the longitude of Old Red River (stream No. 256-202) (154°37'12" W. long.) and the latitude of Low Cape (56°59'35" N. lat.).

(d) Alitak Bay District: all waters south of Kodiak Island bounded by the latitude of Low Cape, the latitude of Cape Trinity (56°44'50" N. lat.), and by mid-stream Shelikof Strait;

(1) Cape Alitak Section: all waters bounded by the latitude of Low Cape, the latitude of Cape Trinity, by mid-stream Shelikof Strait, by a line from Cape Trinity (56°44'50"

KODIAK AREA

N. lat., 154°08'45" W. long.) to Middle Reef (56°54' N. lat., 154°03' W. long.), and by a line from Middle Reef to Tanner Head at 56°53'14" N. lat., 154°13'38" W. long.;

(2) Humpy-Deadman Section: all waters of Alitak Bay east of a line from Cape Trinity, to Middle Reef, to the southernmost tip of Fox Island (56°59'09" N. lat., 154°01'58" W. long.), and from the northernmost tip of Fox Island (56°59'44" N. lat., 154°01'42" W. long.), to 57°01'09" N. lat., 154°00'51" W. long., to the Moser Peninsula at 57°01'10" N. lat., 154°01' W. long.;

(3) Moser-Olga Bay Section: all waters of Moser and Olga Bays bounded by a line from Tanner Head (56°53'14" N. lat., 154°13'38" W. long.), to Middle Reef (56°54' N. lat., 154°03' W. long.), to the southernmost tip of Fox Island (56°59'09" N. lat., 154°01'58" W. long.), and from the northernmost tip of Fox Island (56°59'44" N. lat., 154°01'42" W. long.), to 57°01'09" N. lat., 154°00'51" W. long., to the Moser Peninsula at 57°01'10" N. lat., 154°01' W. long., and by a line from Stockholm Point (57°07'40" N. lat., 154°06'36" W. long.) to the opposite shore at 57°07'40" N. lat., 154°04'50" W. long., excluding the Dog Salmon Flats section;

(4) Dog Salmon Flats Section: all waters of Lower Olga Bay northeast of a line from 57°06'27" N. lat., 154° W. long. to the opposite shore at 57°07'33" N. lat., 154°03' W. long.;

(5) Outer Upper Station Section: all waters of Upper Olga Bay south of a line from 57°07'40" N. lat., 154°23'06" W. long., to 57°07'49" N. lat., 154°06'36" W. long., to Stockholm Point, excluding the Inner Upper Station Section;

(6) Inner Upper Station Section: all waters of Upper Olga Bay south of a line from 57°03'27" N. lat., 154°23'27" W. long. to 57°04'12" N. lat., 154°20'33" W. long.;

(7) Outer Akalura Section: all waters of Upper Olga Bay north of a line from 57°07'40" N. lat., 154°23'06" W. long., to 57°07'49" N. lat., 154°06'36" W. long., to Stockholm Point, excluding the Inner Akalura Section.

(8) Inner Akalura Section: all waters of Upper Olga Bay north of a line from 57°08'40" N. lat., 154°15'18" W. long. to 57°18'45" N. lat., 154°10'54" W. long.

(e) Eastside Kodiak District: all waters south and east of Kodiak Island bounded by the latitude of Cape Trinity (56°44'50" N. lat.), by the latitude of Cape Chiniak (57°37' N. lat.), and by mid-stream Shelikof Strait;

(1) Seven Rivers Section: all waters east of Kodiak Island bounded by the latitude of Cape Trinity, by the latitude of Boot Point (56°50' N. lat.) and a line extending seaward 144° from Cape Kasiak (57°04' N. lat., 153°29'38" W. long.), and by mid-stream Shelikof Strait;

(2) Two-Headed Section: all waters east of Kodiak Island bounded by the latitude of Boot Point and by a line extending seaward 144° from Cape Kasiak;

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(3) Sitkalidak Section: all waters east of Kodiak Island bounded by a line extending seaward 144° from Cape Kasiak and by the latitude of Dangerous Cape (57°16'36" N. lat.);

(4) Inner Ugak Bay Section: all waters of Ugak Bay west of the longitude of Gull Point (152°06' W. long.);

(5) Outer Ugak Bay Section: all waters of Kodiak Island bound by the longitude of Gull Point, the latitude of Dangerous Cape, and the latitude of Cape Chiniak (57°37' N. lat.).

(f) Northeast Kodiak District: all waters northeast of Kodiak Island bounded by the latitude of Cape Chiniak (57°37' N. lat.), and the latitude of Termination Point (57°51'15" N. lat.);

(1) Outer Chiniak Bay Section: all waters north of Kodiak Island bounded by the latitude of Cape Chiniak and the longitude of Isthmus Point (152°19'30" W. long.);

(2) Inner Chiniak Bay Section: all waters of Chiniak Bay bounded by the longitude of Isthmus Point and the latitude of Spruce Cape (57°49'36" N. lat.), excluding the Buskin River Section;

(3) Buskin River Section: all waters of Chiniak Bay west of a line from Cliff Point (57°43'30" N. lat., 152°26'45" W. long.) to Spruce Cape (57°49'36" N. lat., 152°19'24" W. long.);

(4) Monashka/Mill Bay Section: all waters north of Kodiak bounded by the latitude of Spruce Cape and the latitude of Termination Point.

(g) Mainland District: all waters along the southside of the Alaska Peninsula bounded by the latitude of Cape Douglas (58°52' N. lat.), mid-stream Shelikof Strait, and west of the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (57°11'22" N. lat., 156°20'13" W. long.);

(1) Big River Section: all waters bounded by the latitude of Cape Douglas, the latitude of Cape Chiniak on the mainland (58°31' N. lat.), and by mid-stream Shelikof Strait;

(2) Hallo Bay Section: all waters of Hallo Bay bounded by the latitude of Cape Chiniak on the mainland, the latitude of Cape Nukshak (58°23'30" N. lat.), and by mid-stream Shelikof Strait;

(3) Outer Kukak Bay Section: all waters bounded by the latitude of Cape Nukshak and the latitude of Cape Gull (58°13' N. lat.), excluding the Inner Kukak Section;

(4) Inner Kukak Bay Section: all waters of Kukak Bay west of 154°11' W. long.;

(5) Dakavak Bay Section: all waters bounded by the latitude of Cape Gull, the latitude of the southern entrance of Dakavak Bay (58°01' N. lat.), and by mid-stream Shelikof Strait;

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(6) Katmai Section: all waters bounded by the latitude of the southern entrance of Dikavak Bay, the latitude of Cape Kubugakli (57°53'30" N. lat.), and by mid-stream Shelikof Strait;

(7) Alinchak Section: all waters bounded by the latitude of Cape Kubugakli, the latitude of Cape Aklek (57°41'24" N. lat.), and by mid-stream Shelikof Strait;

(8) Cape Igvak Section: all waters bounded by the latitude of Cape Aklek (57°41'24" N. lat.), the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (156°20'13" W. long.), and by mid-stream Shelikof Strait, excluding the Wide Bay Section;

(9) Wide Bay Section: all waters of Wide Bay enclosed by a line from Cape Kayakliut (57°17'35" N. lat., 156°19' W. long.) to the easternmost tip of Terrace Island at 156°15' N. lat., to Cape Igvak (57°26' N. lat., 156°01' W. long.).

ARTICLE 3.—SALMON FISHERY

§ AAC 18.310. FISHING SEASONS. (a) Salmon may be taken only from June 5 through October 31.

§ AAC 18.320. FISHING PERIODS. (a) Salmon may be taken only during periods established by emergency order.

§ AAC 18.330. GEAR. (a) In the Afognak District salmon may be taken only by purse seines and beach seines.

(b) In the Northwest Kodiak District salmon may be taken only by purse seines and beach seines, except that in the Central Section, salmon may also be taken by set gill nets.

(c) In the Southwest Kodiak District salmon may be taken only by purse seines and beach seines.

(d) In the Alitak District salmon may be taken only by purse seines and beach seines, except that

(1) in the Moser-Olga Bay Section salmon may be taken only by set gill nets;

(2) in the Dog Salmon Flats Section salmon may be taken only by set gill nets;

(3) in the Outer Upper Station Section salmon may be taken only by set gill nets;

(4) in the Inner Upper Station Section salmon may be taken only by set gill nets;

(5) in the Outer Akalura Section salmon may be taken only by set gill nets;

KODIAK AREA

(6) in the Inner Akalura Section salmon may be taken only by set gill nets;

(7) after September 4, salmon may be taken by purse seines, beach seines, and set gill nets in the entire Alitak District.

(e) In the East Kodiak District salmon may be taken only by purse seines and beach seines.

(f) In the Northeast Kodiak District salmon may be taken only by purse seines and beach seines.

(g) In the Mainland District salmon may be taken only by purse seines and beach seines.

§ AAC 18.331. GILL NET SPECIFICATIONS AND OPERATIONS. (a) Except as provided for in (c) of this section, a CFEC permit holder may operate no more than 150 fathoms of set gill net in the aggregate, nor more than two set gill nets.

(b) Seine webbing may be used on the shoreward end of a set gill net and the length of the seine webbing used may extend no more than 50 fathoms seaward of the beach at the lowest tide of the current day, except that

(1) in the Moser-Olga Bay, Inner Dog Salmon, Inner Akalura, Outer Akalura, Outer Upper Station, and Inner Upper Station Sections of the Alitak District, seine webbing may be used only from the high tide mark seaward, and no portion of the seine web may be in water deeper than five feet at the lowest tide of the current day;

(2) in that portion of the Moser-Olga Bay Section of the Alitak District south of a line from Bun Point to the opposite shore at 56°57'59" N. lat., 154°07'35" W. long., seine webbing may be used only from the high tide mark seaward, and must meet one of the following requirements:

(A) no portion of the seine web may be in water deeper than five feet at the lowest tide of the current day; or

(B) the length of seine webbing used may be no more than 20 fathoms per set.

(c) Set gill nets must be operated in substantially a straight line, except that no more than 25 fathoms of a set gill net may be used as a hook. A hook may be used in any configuration.

(d) The shoreward end of a set gill net must be attached to a point of land which is exposed at the lowest tide of the day or to a rock that is within 5 feet of the surface at the lowest tide of the day. A rock is any naturally located or created geological formation that shows no evidence of having been located or created through man-made means. A set gill net may not be attached to the beach inside of closed waters.

(e) Two salmon set gill net CFEC permit holders may form a joint venture and combine their gear under the following conditions:

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(1) a permit must be obtained from a local representative of the department before a joint venture may start operations;

(2) only one permit per year will be issued for each joint venture;

(3) the permit must be signed by both CFEC permit holders and each must have a copy of the permit readily available for inspection;

(4) the permit may be canceled by the department upon the request of one of the joint venture operators;

(5) the gear and site markers required by 5 AAC 39.280 must bear the five-digit CFEC permit serial number of both permit holders;

(6) no single set gill net may be more than 150 fathoms in length;

(7) no joint venture may operate more than three set gill nets; and

(8) both parties of the joint venture are legally responsible for the operation of all gear of the joint venture.

(f) No set gill net gear, including running lines, shore leads, anchors, and buoys, may be placed in the water, nor may signs required by 5 AAC 18 or 5 AAC 39 be placed on the beach before emergency order openings of the closed waters areas of Upper Olga Bay described in 5 AAC 18.350(a)(1)(B)(i).

(g) No gill net may be more than 125 meshes in depth.

(h) In the Alitak Bay district, the shoreward end of a set gill net must not begin further seaward, or in water deeper than the limit specified for seine webbing in (b) of this section.

5 AAC 18.332. SEINE SPECIFICATIONS AND OPERATION. (a) No purse seine and hand purse seine may be less than 100 fathoms or more than 200 fathoms in length. No seine may be less than 100 meshes or more than 325 meshes in depth. At least 50 fathoms of a seine must be 150 meshes in depth.

(b) One lead no more than 100 fathoms in length may be used with each purse seine or hand purse seine. The aggregate length of a seine and lead may not exceed 250 fathoms. Leads must be removed from the water within two hours after a season or fishing period closure. Each lead must have at each end a buoy, cork, or float plainly and legibly marked with the operator's five-digit CFEC permit serial number.

(c) Beach seines no less than 100 fathoms nor more than 225 fathoms in length may be used.

(d) Beach seines may not be less than 100 meshes in depth.

(e) When an anchor is used during the operation of a purse seine, hand purse seine or beach seine, only the shoreward end of the seine or lead may be anchored; the seine shall be attached to the licensed vessel, and the vessel may not be anchored.

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(f) In the Mainland District, it is unlawful to take salmon with the assistance of an aircraft directing the operation of the seine gear.

(g) Seine mesh size may not be more than seven inches.

5 AAC 18.335. MINIMUM DISTANCE BETWEEN UNITS OF GEAR. No part of a set gill net may be set or operated within 900 feet of any part of another set gill net, or be attached to the beach within 900 feet of another net, except that in the Dog Salmon Flats, Outer Upper Station, Inner Upper Station, Outer Akalura, and Inner Akalura Sections there is not minimum distance between units of set gill net gear.

5 AAC 18.350. CLOSED WATERS. (a) Salmon may not be taken in the following waters:

(1) Alitak District.

(A) Humpy Cove: all waters east of a line from the northern entrance of Seaborg Cove at 56°53'45" N.lat., 153°58'48" W.long., to a point approximately two and three-quarters miles northeast of Hawk Point at 56°51' N.lat., 154°03'39" W.long.;

(B) Olga Bay.

(i) Upper Olga Bay: north and west of a line from Stockholm Point at 57°07'40" N.lat., 154°06'36" W.long., to the opposite shore at 57°07'40" N.lat., 154°04'50" W.long.;

(ii) Horse Marine: northeast of a line from 57°06'27" N.lat., 154° W.long.; to 57°07'33" N.lat., 154°03' W.long.;

(iii) Olga Narrows: south of 57°04'23" N.lat., and north of a line from 57°01'27" N.lat., 154°08'32" W.long. running east to a point 75 fathoms from the mean low tide mark to 57°11' N.lat., 154°07'58" W.long.;

(C) Portage Bay

(i) Southeast Arm: east of the longitude of Bert Point;

(ii) Sulua Bay: north of 56°58'36" N.lat.;

(D) Deadman Bay: north of a line from 57°05'30" N.lat., 153°50'54" W.long., to 57°07'05" N.lat., 153°51'44" W.long.;

(E) Sukhoi Lagoon: in the bay and the lagoon;

(2) Southwest Kodiak District

(A) all waters east of the terminus of the Ayakulik River (Red River);

(B) all waters east of the terminus of the unnamed stream at 57°16'21" N.lat., 154°37'10" W.long.;

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(C) all waters east of a line from 57°33'48" N.lat., 154°30'54" W.long., to 57°31'26" N.lat., 154°34'36" W.long., including Sturgeon Lagoon;

(D) all waters of Grant's Lagoon and Halibut Bay Lagoon;

(E) that portion of the Southwest Kodiak District enclosed by a line from Cape Karluk (57°34'42" N. lat., 154°30'54" W. long.), to 57°34'42" N. lat., 154°26'36" W. long., to Karluk Spit at 57°34'37" N. lat., 154°26'30" W. long.;

(5) Northwest Kodiak District

(A) Uyak Bay: south of 57°23'06" N.lat.;

(B) Zachar Bay: within a line from 57°33'36" N.lat., 153°47'42" W.long. North-
erly to a point at 57°34'36" N.lat., 153°47'30" W.long.;

(C) Spiridon Bay: east of 153°42'24" W.long.;

(D) Little River: within 500 yards of the terminus;

(E) Cannon's Lagoon (Cambell's): In the lagoon and 500 yards from its mouth;

(F) Uganik Bay

(i) South Arm: south of 57°39'44" N.lat.;

(ii) East Arm (Mush Bay): within a line from Packers Spit at 57°44'30" N.lat., 153°29'54" W.long., the opposite shore at 57°42'30" N.lat., 153°28'36" W.long., and including the lagoon behind Packers Spit;

(G) North Uganik Passage: south of 57°49'30" N.lat., to 57°48'30" N.lat.;

(H) Terror Bay: all waters of the bay south of 57°46'30" N.lat.;

(I) Kizhuyak Bay

(i) Barabara Cove: within one-half statute mile of the stream terminus;

(ii) all waters south of a line extending from Pestchani Point to a point on the opposite shore at 57°47' N.lat., 152°54' W.long.;

(J) Sharatin Bay: south of 57°50'41" N.lat.;

(K) Soldier's Bay: within a line from Otmeloi Point to Entrance Point to the southern tip of Low Island to Seredni Point;

(L) Anton Larsen Bay: south of 57°51'54" N.lat.;

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(M) Ouzinkie Harbor: all waters of Ouzinkie Harbor north of a line from 57°55'10" N. lat., 152°36' W. long. to 57°55'03" N. lat., 152°29'20" W. long.;

(N) Monks Lagoon: all waters of the lagoon northwest of a line between ADF&G regulatory markers located on both sides of the entrance to the lagoon;

(6) Northeast Kodiak District

(A) Mill Bay and all those waters bounded by a line from Spruce Cape to the northernmost point of Woody Island, to the northernmost point of Holiday Island, to the northernmost point of Near Island, to the opposite shore on Kodiak Island at 57°47'25" N.lat., 152°23'23" W.long.;

(B) Women's Bay: all waters inside a line from the tip of Nyman Peninsula (57°43'18" N. lat., 152°31'25" W. long.), to the northeastern tip of Mary's Island (57°42'27" N. lat., 152°31'52" W. long.) to the southeastern shore of Women's Bay at 57°42' N. lat., 152°31'23" W. long.;

(C) Middle Bay: all waters south of a line from 57°39'58" N.lat., 152°29'15" W.long., to the opposite shore at 57°39'30" N.lat., 152°28' W.long.;

(D) Kalsin Bay: all waters south of a line from a bluff on the east shore at 57°36'30" N.lat., 152°24'30" W.long., to the opposite shore at the southwest corner of the bay at 57°36'30" N.lat., 152°28'06" W.long.;

(7) Eastside Kodiak District

(I) Ugak Bay

(i) west of 152°52'30" W.long.;

(ii) Eagle Harbor: within one-half statute mile of the terminus of Eagle River;

(iii) Gull Cape Lagoon: in the lagoon;

(iv) Saltery Cove: all waters north of a line from a point at 57°29' N.lat., 152°43'06" W.long., to a point on the opposite shore at 57°29'48" N.lat., 152°47'42" W.long.;

(v) Pasagshak River (No. 259-411): within 1000 yards from the terminus;

(J) Kiliuda Bay

(i) west of 153°03'36" W.long.;

(ii) Dog Bay: north of a line from Coxcomb Point to Shearwater Point;

(K) Shearwater Bay: north of a line from 57°20'23" N.lat., 152°52'47" W.long., to 57°20'45" N.lat., 152°53'30" W.long.;

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(L) Sitkalidak Strait: north of a line at the latitude of Old Harbor Village (57°12'06" N. lat.) and west of 153°12'48" W. long.;

(M) Barling Bay: inside a line from 57°10'45" N. lat., 153°21'47" W. long., to 57°11'27" N. lat., 153°20'24" W. long.;

(N) Kaiugnak Bay: west of 153°39'32" W. long.;

(O) Kiavak Bay: in the lagoon and 500 yards from its mouth;

(P) Kaguyak Bay: west of 153°45'07" W. long.;

(Q) Seven Rivers Cove (includes stream no. 258-701): west of a line from 56°47'30" N. lat., 153°52'36" W. long. to 56°46'54" N. lat., 153°54' W. long.;

(R) Natalia Bay Lagoon: in the lagoon inside of 153°19'06" W. long.;

(8) Afognak District

(A) Kazakof Bay (Danger Bay): north of 58°10'54" N. lat.;

(B) Kitoi Bay: west of a line from 58°10'39" N. lat., 152°17'13" W. long., to 58°09'32" N. lat., 152°18'36" W. long.;

(C) Ruth Bay (Izhut): west of 152°18'33" W. long.;

(D) Seal Bay: south of 58°21'38" N. lat., in the inner West Bay;

(E) Pauls Bay (Perenos): within one-half statute mile of the terminus of Pauls Creek;

(F) Discoverer Bay: south of 58°19'06" N. lat.;

(G) Paramanof Bay

(i) East Arm: east of 152°45' W. long.;

(ii) South Arm: south of 58°15'57" N. lat.;

(iii) Thorsheim Bay (includes stream no. 251-302): south of a line from 58°17'12" N. lat., 152°50'24" W. long. to 58°17'08" N. lat., 152°50'42" W. long.;

(iv) Long Lagoon Bay (includes stream no. 251-301): south of a line from 58°16'28" N. lat., 152°53'21" W. long. to 58°16'24" N. lat., 152°53'11" W. long.;

(H) Malina Bay: east of 152°55' W. long.;

(I) Afognak Bay: north of a line from Otrubistoi Point to Settlement Point;

(9) Mainland District

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(A) Swikshak Lagoon: all waters of the lagoon;

(B) Kukak Bay: all waters west of a line from a point at 58°18'52" N. lat., 154°16'32" W. long., then to a point at 58°18'45" N. lat., 154°16'05" W. long., then to a point at 58°17'18" N. lat., 154°17'23" W. long., then to a point at 58°15'56" N. lat., 154°16'29" W. long.;

(C) Kaffia Bay: within one statute mile outside the entrance of the outer lagoon;

(D) Wide Bay: west of a line from 156°28'42" W. long., 57°17'55" N. lat., to 156°31'59" W. long., 57°19'48" N. lat.;

(E) Chiniak Lagoon Creek (stream no. 262-154): all waters enclosed by a line from Cape Chiniak (58°31' N. lat., 153°54'30" W. long.) to a point on Village Beach approximately 500 yards from the entrance to Chiniak Lagoon;

(F) all waters of Big River (stream no. 262-152) flats west of 153°52'20" W. long.;

(G) Hailo Bay

(i) Ninagiak River: inside of a line running in a southeasterly direction from a point approximately 500 yards north of the stream terminus and a line running in an easterly direction from a point approximately 500 yards south of the stream terminus;

(ii) unnamed stream (ADF&G stream no. 262-203): inside of a line running in an easterly direction from a point approximately 500 yards north of the stream terminus and a line running in a northeasterly direction from a point approximately 500 yards south of the stream terminus;

(H) Village Creek (stream no. 262-153): between two parallel lines that start at points located at higher high water beginning at approximately 500 yards north and 500 yards south of the stream terminus and extend east to mid-stream of Shelikof Strait;

(I) Kinak Bay (Kinak Creek, no. 262-451): in the lagoon and 500 yards from its mouth;

(10) within the designated freshwater salmon streams and rivers of the Kodiak Area, and all saltwater within 500 yards of all points of a straight line extending between the seaward extremities of the exposed tideland banks, or as marked by ADF&G regulatory markers. The provisions of 5 AAC 39.290 do not apply to the Kodiak Area. Freshwater salmon streams and rivers are those identified annually on a Kodiak Area Salmon Stream Chart available from the department.

(b) Where regulatory markers have been deployed by the department to aid fishermen in determining closed waters locations listed in this section, the markers will be placed either as close as possible to the described locations or in a location deemed necessary by the department. If the location of a regulatory marker is in conflict with the closed waters listed in this section, it is illegal to fish on the streamward side of the marker.

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5 AAC 18.355. SALMON PROCESSOR AND BUYER REPORTING REQUIREMENTS. The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.

5 AAC 18.360. CAPE IGVAK SALMON MANAGEMENT PLAN. (a) In years when a harvestable surplus is beyond escapement goals, for the first (Black Lake) and second (Chignik Lake) runs of Chignik River system sockeye salmon is expected to be less than 600,000, there will be no commercial salmon fishery allowed in the Cape Igvak section, as described in 5 AAC 18.200(g)(8) until a harvest of 300,000 sockeye salmon in the Chignik Area, as described in 5 AAC 15.100, is achieved. After July 8, and after at least 300,000 sockeye salmon have been harvested in the Chignik area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(b) In years when a harvestable surplus beyond escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000, but the first run fails to develop as predicted and it is determined that a total sockeye salmon harvest in the Chignik Area of 600,000 or more may not be achieved, the Cape Igvak section commercial salmon fishery will be curtailed in order to allow at least a minimum harvest in the Chignik Area of 300,000 sockeye salmon by July 9 if that number of fish is determined to be surplus to the escapement goals of the Chignik River system. After July 8, after at least 300,000 sockeye salmon have been harvested in the Chignik Area and its escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(c) On years when a harvestable surplus beyond the escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000, and the department determines the runs are as strong as expected, the department will manage the fishery in such a manner whereby the number of sockeye salmon taken in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(d) The total Chignik sockeye salmon catch constitutes those sockeye salmon caught within the Chignik area plus 80 percent of the sockeye salmon caught in the East Stepovak, Southwest Stepovak, Stepovak Flats, Balboa Bay, and Beaver Bay Sections, as described in 5 AAC 09.200(f), plus 80 percent of the sockeye salmon caught in the Cape Igvak Section. The harvest in the Cape Igvak Section at any time before July 25 may be permitted to fluctuate above or below 15 percent of the cumulative Chignik sockeye salmon catch.

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(e) This allocation method will be in effect through July 25. The first fishing period of the commercial salmon fishing season in the Cape Igvak Section will not occur before the first fishing period of the commercial salmon fishing season in the Chignik Area. After July 25, commercial salmon fishing season in the Cape Igvak section may be allowed on the local Kodiak Area stocks or specifically for Chignik River system sockeye salmon if the second run escapement has reached 200,000.

(f) During the period from approximately June 26 to July 9, the strength of the second run of Chignik River system sockeye salmon cannot be evaluated. In order to prevent overharvest of the second run, commercial salmon fishing in the Cape Igvak Section will, in the department's discretion, be disallowed or severely restricted during this period.

(g) The department shall announce commercial salmon fishing periods by emergency order. The department shall give at least one day notice prior to the opening of a commercial salmon fishing period unless it is an extension of a fishing period in progress.

5 AAC 18.361. ALITAK BAY DISTRICT SALMON MANAGEMENT PLAN. (a) The department shall manage the commercial salmon fishery in the Alitak Bay District in accordance with the guidelines set out in the Alitak Bay District Salmon Management Plan. The goal of this plan is to achieve escapement and harvest objectives of sockeye, pink, and coho salmon stocks returning to the Deadman-Portage Bay Section systems and the Horse Marine, Fraser, Akaturu, and Upper Station systems. It is the intent of the board that salmon bound to these systems be harvested to the extent possible by the traditional fisheries located in the Cape Aliak, Deadman-Portage Bay, and Moser-Olga Bay Sections.

(b) The Cape Alitak Section must be managed during the period June 9 through July 15 based on the sockeye salmon return to the Fraser system. During the period July 16 through August 9, in odd numbered years this section must be managed based on the pink salmon return to the Fraser system and, in even numbered years this section must be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, this section must be managed based on the sockeye salmon return to Upper Station but, on even numbered years this section must be managed based on the pink salmon return to the Fraser system. During the period August 26 through season's end, the Cape Alitak Section must be managed based upon the coho and sockeye salmon returns to the entire Alitak District.

(c) The Moser-Olga Bay Section must be managed, during the period June 9 through July 15, based upon the sockeye salmon return to the Fraser system. During the period July 16 through August 9, in odd-numbered years this section must be managed based on the pink salmon return to the Fraser system and, in even-numbered years this section must be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, in odd-numbered years this section must be managed based on the sockeye salmon return to Upper Station and, in even numbered years this section must be managed based on either the pink salmon return to the Fraser system or on the sockeye salmon return to the Upper Station system. During the period August 26 through season's end this section must be managed based on the coho and late sockeye salmon returns to all Olga Bay systems.

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(d) The Humpy-Deadman Section must be managed simultaneously, and with equivalent fishing time, with the Cape Alitak and Moser-Olga Bay Sections during the period from June 9 through July 15. After July 15, the Humpy-Deadman Section must be managed based on the strength of returns to systems located within the section.

(e) The Dog Salmon Flats Section must be managed on the basis of sockeye and pink salmon returns to the Fraser River system during the period of June 9 through August 20. During the period of August 21 through season's end this section must be managed on the basis of coho salmon returns to the Dog Salmon River and Horse Marine systems. This section may only be opened to fishing when total desired escapement goals are expected to be exceeded. Such openings may not jeopardize achievement of minimum escapement goals for either of the two remaining salmon species. A 24 hour advance notice must be given before opening this section.

(f) The Inner and Outer Akalura Sections must be managed based on early and late returns of sockeye salmon to the Akalura system during the period from June 9 through August 20. From August 21 through August 26, these sections must be managed based on coho and late sockeye salmon returns to the Akalura system. After August 26, both sections must be managed based on coho salmon returns to the Akalura system. The Inner and Outer Akalura Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings may not jeopardize achievement of minimum escapement goals for either of the two remaining salmon species. A 24 hour advance notice must be given before opening this section.

(f) The Inner and Outer Akalura Sections must be managed based on early and late returns of sockeye salmon to the Akalura system during the period from June 9 through August 20. From August 21 through August 26, these sections must be managed based on coho and late sockeye salmon returns to the Akalura system. After August 26, both sections must be managed based on coho salmon returns to the Akalura system. The Inner and Outer Akalura Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings may not jeopardize achievement of minimum escapement goals for other salmon species. Fishing time in the Outer Akalura Section must always occur before any fishing time in the Inner Akalura Section is allowed for each target species. At least 24 hours advance notice must be given before opening either the Inner or Outer Akalura Sections.

(g) The Inner and Outer Upper Station Sections must be managed based on early and late returns of sockeye salmon to the Upper Station system during the period from June 9 through August 20. From August 21 through August 25, these sections must be managed based on coho and late sockeye salmon returns to the Upper Station system. After August 26, both sections must be managed based on coho and late sockeye salmon returns to the Upper Station system. The Inner and Outer Upper Station Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings may not jeopardize achievement of minimum escapement goals for the other salmon species. Fishing time in the Outer Upper Station Section must always occur before any fishing time in the Inner Upper Station Section is allowed for each target species. At least 24 hours advance notice must be given before opening of either the Inner or Outer Upper Station Sections.

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5 AAC 18.362. WESTSIDE KODIAK MANAGEMENT PLAN. (a) The goal of the Westside Kodiak Management Plan is to achieve escapement and harvest objectives of sockeye salmon returning to the Karluk, Ayakulik and other Westside minor sockeye salmon systems and of pink, chum and coho salmon returning to systems in the Southwest Afognak, Central, North Cape, Anton Larsen Bay, Sheratin Bay, Kizhuyak Bay, Terror Bay, Inner Uganik Bay, Spiridon Bay, Zachar Bay, Uyak Bay, Outer Karluk, Inner Karluk, Sturgeon Bay, Halibut Bay, Outer Ayakulik and Inner Ayakulik sections. It is the intent of the Board that salmon bound to these systems be harvested to the extent possible by the traditional fisheries located in all 17 sections. The department shall manage the Northwest Kodiak and Southwest Kodiak Districts and the Southwest Afognak Section in accordance with the guidelines set out in this plan.

(b) The Central and North Cape section shall be managed:

(1) from June 9 through approximately June 15, as a mixed stock fishery directed on early run sockeye salmon returning to Karluk, Ayakulik and Olga Bay systems. The department shall open two commercial test fishing periods, each not exceeding 33 hours in length, during this time;

(2) from approximately June 16 through July 5, based on early run sockeye salmon returning to the Karluk system;

(3) from approximately July 6 through August 15, based on pink salmon returning to the major pink salmon systems in the Northwest Kodiak district;

(4) from approximately August 16 through August 24, based on pink salmon returning to the Northwest Kodiak District and on late run sockeye salmon returning to the Karluk system;

(5) from approximately August 25 through September 5, based on late run sockeye salmon returning to the Karluk system;

(6) after approximately September 5, based on coho salmon returning to the Northwest Kodiak district.

(c) The Anton Larsen Bay, Sheratin Bay, Kuzhuyak Bay, Terror Bay, Inner Uganik bay, Spiridon Bay, Zachar Bay and Uyak Bay sections shall be managed:

(1) from June 9 through approximately June 15, based on local sockeye and early run chum salmon returning to the major systems in each section. The department shall open two commercial test fishing periods, each not exceeding 33 hours in length and occurring simultaneously with those in the Central and North Cape sections, during this time;

(2) from approximately June 16 through July 5, based on local sockeye and early run chum salmon returning to the major systems in each section;

(3) from approximately July 6 through July 31, based on local sockeye, pink and early run chum salmon returning to the major systems in each section;

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(4) from approximately August 1 through August 24, based on local pink and late run chum salmon returning to the major systems in each section;

(5) from approximately August 25 through September 5 based on local pink, late run chum and coho salmon returning to the major salmon systems in each section;

(6) after approximately September 5, based on coho salmon returning to the major coho salmon systems in each section.

(d) The Southwest Afognak Section shall be managed:

(1) from June 9 through approximately June 15, as a mixed stock fishery directed on early run sockeye salmon returning to Karluk, Ayakulik and Olga Bay systems. The department shall open one commercial test fishing period, not exceeding 33 hours in length, during this time;

(2) from approximately June 16 through July 5, based on early run sockeye salmon returning to the Karluk system;

(3) from approximately July 6 through August 15, based on pink salmon returning to the major pink salmon systems in the Southwest Afognak Section and the Northwest Kodiak District. From July 6 through July 25, the section must also be managed according to 5 AAC 18.363(c), the North Shelikof Management Plan;

(4) from approximately August 16 through August 24, based on pink salmon returning to the major pink salmon systems in the Southwest Afognak Section and the Northwest Kodiak District and on the late run sockeye salmon returning to the Karluk system;

(5) from approximately August 25 through September 5, based on late run sockeye salmon returning to the Karluk system;

(6) after approximately September, based on coho salmon returning to the major coho salmon systems in the Southwest Afognak district.

(e) The Inner and Outer Karluk sections must be managed:

(1) from June 9 through July 15, based on early run sockeye salmon returning to the Karluk system. The department may open fishing periods in the Inner Karluk Section only if it appears that the desired early run escapement goal will be exceeded. In the Outer Karluk Section, the department may not open more than one 33 hour fishing period before June 16 and, from June 16 through approximately July 15, shall open fishing periods simultaneously with open periods in the Central Section;

(2) from July 16 through approximately August 24:

(A) on odd year cycles, based on late run sockeye salmon returning to the Karluk system;

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(B) on even year cycles, based on late run sockeye and pink salmon returning to the Karluk system;

(3) from approximately August 25 through September 5, based on late run sockeye salmon returning to the Karluk system;

(4) after approximately September 5, based on coho salmon returning to the Karluk system.

(f) The Sturgeon and Halibut Bay sections shall be managed:

(1) from June 9 through approximately June 22, as mixed stock fisheries directed on early run sockeye salmon returning to the Karluk, Ayakulik and Olga Bay systems. The department shall not open any commercial fishing periods during this time.

(2) from approximately June 23 through July 15, based on early run sockeye salmon returning to the Ayakulik and Karluk systems, except that the Sturgeon Section shall also be managed with consideration for early run chum salmon returning to the Sturgeon system;

(3) from approximately July 16 through August 24,

(A) in the Sturgeon Section,

(i) on odd year cycles, based on late run sockeye salmon returning to the Karluk system;

(ii) on even year cycles, based on late run sockeye and on pink salmon returning to the Karluk system;

(B) in the Halibut Bay Section,

(i) on odd year cycles, from approximately July 16 through July 31 on late run sockeye salmon returning to the Ayakulik system and, from approximately August 1 through August 24 on late run sockeye salmon returning to the Karluk system;

(ii) on even year cycles, from approximately July 16 through July 31, on late run sockeye salmon and pink salmon returning to the Ayakulik system and, from approximately August 1 through August 24, on late run sockeye salmon returning to the Karluk system and on pink salmon returning to the Ayakulik system;

(4) from approximately August 25 through September 5, based on late run sockeye salmon returning to the Karluk system;

(5) after approximately September 5, based on coho salmon returning to local coho salmon systems.

(g) The Inner and Outer Ayakulik sections shall be managed:

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(1) from June 9 through approximately July 15, based on early run sockeye salmon returning to the Ayakulik systems;

(2) from approximately July 16 through August 24:

(A) on odd year cycles, based on late run sockeye salmon returning to the Ayakulik system;

(B) on even year cycles, based on late run sockeye and pink salmon returning to the Ayakulik system;

(3) after approximately August 24, based on coho salmon returning to the Ayakulik system.

5 AAC 18.363. NORTH SHELKOF STRAIT SOCKEYE SALMON MANAGEMENT PLAN. (a) The purpose of the North Shelkof Strait Sockeye Salmon Management Plan is to allow traditional fisheries in the area to be conducted on Kodiak Area salmon stocks, while minimizing the directed harvest of Cook Inlet sockeye salmon stocks. The board recognizes that some incidental harvest of other stocks has and will occur in this area while the seine fishery is managed for Kodiak Area salmon stocks. The board intends, however, to prevent a repetition of the non-traditional harvest pattern which occurred in 1988.

(b) from July 6 through July 25 in the Dakavak Bay, Outer Kukak Bay, Inner Kukak Bay, Hallo Bay and Big River Sections of the Mainland District and in the Shuyak Island and Northwest Afognak Sections of the Afognak District, the department shall manage the fishery as follows:

(1) management of the fishery shall be based on local stocks;

(2) the fishery may remain open during normal fishing periods until the harvest exceeds 15,000 sockeye salmon;

(3) when the harvest exceeds 15,000 sockeye salmon, the department shall restrict the fishery by emergency order to waters of:

(A) Dakavak Bay, Outer Kukak Bay, Inner Kukak Bay, Hallo Bay and Big River sections west of a line from Cape Douglas at 58°51'06" N. lat., 153°14'54" W. long., to a point at 58°42'40" N. lat., 153°26'18" W. long., to a point east of Swikshak river at 58°38'06" N. lat., 153°35'24" W. long., to Cape Chiniak at 58°31' N. lat., 153°54'21" W. long., to Cape Nukshak at 58°23'30" N. lat., 153°57' W. long., to Cape Ugyak at 58°16'36" N. lat., 154°06'03" W. long., to Cape Gull at 58°13' N. lat., 154°08'30" W. long., to Cape Kuliak at 58°08'11" N. lat., 154°12'34" W. long., to Cape Atushagvik at 58°05' N. lat., 154°18'48" W. long., to Cape Ilkugitak at 58°01'12" N. lat., 154°34'48" W. long., to the southern entrance of Dakavak Bay at 58°01' N. lat., 154°43'30" W. long.;

(B) Shuyak Island and Northwest Afognak sections south and east of a line from Point Banks at 58°38' N. lat., 152°18'54" W. long., to Dark Island at 58°38'45" N.

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lat., 152°33'05" W. long., to Gull Island at 58°35'48" N. lat., 152°38'45" W. long., to the northern entrance of Big Bay at 58°34'06" N. lat., 152°40'12" W. long., to the western entrance of Blue Fox Bay at 58°27'41" N. lat., 152°43'42" W. long., to Black Cape at 58°24'33" N. lat., 152°53'09" W. long., to Cape Paramanof at 58°18'21" N. lat., 153°02'45" W. long.

(c) From July 6 through July 25 in the Southwest Afognak Section of the Afognak district, the department shall manage the fishery as follows:

(1) management of the fishery shall be based on local stocks consistent with 5 AAC 18.362(d)(3);

(2) the fishery may remain open during normal fishing periods until the harvest exceeds 50,000 sockeye salmon;

(3) when the harvest exceeds 50,000 sockeye salmon, the department shall restrict the fishery by emergency order to waters of the Southwest Afognak Section east of a line from Cape Paramanof at 58°18'21" N. lat., 153°02'45" W. long., to Tanaak Cape at 58°15'36" N. lat., 153°06'09" W. long., to Steep Cape at 58°12'05" N. lat., 153°12'33" W. long., to a point at 58°08'25" N. lat., 153°18'52" W. long., to Raspberry Cape at 58°03'35" N. lat., 153°25'06" W. long.

5 AAC 18.364. CRESENT LAKE COHO SALMON MANAGEMENT PLAN. (a) The department shall manage the commercial, sport and subsistence fisheries in Settler Cove to provide for full utilization of the enhanced stock of coho salmon returning to Crescent Lake in accordance with the Crescent Lake Coho Salmon Management Plan in this section.

(b) Sport and subsistence fisheries are allowed in all waters of Settler Cove consistent with 5 AAC 64 and 5 AAC 01.

(c) The department may open, by emergency order, those waters of Settler Cove, between the causeway and a line from the seaward end of the Port Lyons breakwater to a department marker located directly across Settler Cove from the breakwater, to the commercial taking of salmon only as follows:

(1) the department shall not allow the commercial taking of salmon before September 16 and;

(2) before opening the fishery, the department shall determine that 500 or more coho salmon are available in Settler Cove for harvest.

5 AAC 18.394. POSSESSION OF STEELHEAD. Steelhead taken incidental to commercial salmon fishing in Karluk Lagoon must be returned to the water unharmed.

Appendix F.2. Summary of commercial salmon fishery emergency orders issued for the Kodiak Management Area, 1990.

Emergency Order No.	Time/Date		Action Taken
	Issued	Effective	
27	3:00 P.M. 6/06/90	12:00 Noon 6/09/90	<u>Opening</u> for 33 hours; 12:00 Noon 6/09 - 9:00 P.M. 6/10 - Northwest Kodiak District - Alitak Bay District
		12:00 Noon 6/09/90	<u>Opening</u> for 57 hours; 12:00 Noon 6/09 - 9:00 P.M. 6/11 - Inner Ayakulik Section (start by flares) - Outer Ayakulik Section
28	2:00 P.M. 6/11/90	9:00 P.M. 6/11/90	<u>Extension</u> for 96 hours; 9:00 P.M. 6/11 - 9:00 P.M. 6/15 - Inner & Outer Ayakulik Sections
		12:00 Noon 6/12/90	<u>Opening</u> for 57 hours; 12:00 Noon 6/12 - 9:00 P.M. 6/14 - Alitak Bay District
		12:00 Noon 6/14/90	<u>Opening</u> for 33 hours; 12:00 Noon 6/14 - 9:00 P.M. 6/15 - Northwest Kodiak District <u>except</u> for the Kizhuyak Section. - Afognak District <u>except</u> for the Duck Bay, Izhut Bay and Kitoi Bay Sections - Eastside Kodiak District - Big River Section - Outer Kukak Section
29	Herring E.O.		Herring E.O.
30	3:00 P.M. 6/14/90	9:00 P.M. 6/14/90	<u>Extension</u> for 24 hours; 9:00 P.M. 6/14 - 9:00 P.M. 6/15 - Alitak Bay District
		9:00 P.M. 6/15/90	<u>Extension</u> for 72 hours; 9:00 P.M. 6/15 - 9:00 P.M. 6/18 - Inner & Outer Ayakulik Sections
31	11:00 A.M. 6/18/90	9:00 P.M. 6/18/90	<u>Extension</u> for 72 hours; 9:00 P.M. 6/18 - 9:00 P.M. 6/21 - Inner & Outer Ayakulik Sections
		12:00 Noon 6/20/90	<u>Opening</u> for 33 hours; 12:00 Noon 6/20 - 9:00 P.M. 6/21 - Northwest Kodiak District <u>except</u> for the Kizhuyak Section.

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Emergency Order No.	Issued	Time/Date Effective	Action Taken
31 (continued)			<ul style="list-style-type: none"> - Southwest and Southeast Afognak Sections - Eastside Kodiak District - Big River & Out. Kukak Sections
32	2:00 P.M. 6/21/90	9:00 P.M. 6/21/90	<u>Extension</u> for 24 hours; 9:00 P.M. 6/21 - 9:00 P.M. 6/22 <ul style="list-style-type: none"> - Southeast Afognak Section <u>Extension</u> for 72 hours; 9:00 P.M. 6/21 - 9:00 P.M. 6/24 <ul style="list-style-type: none"> - Inner & Outer Ayakulik Sections
33	2:00 P.M. 6/22/90	12:00 Noon 6/23/90 6:00 A.M. 6/23/90	<u>Opening</u> for 33 hours; 12:00 Noon 6/23 - 9:00 P.M. 6/24 <ul style="list-style-type: none"> - Alitak Bay District <ul style="list-style-type: none"> - <u>Opening</u> for Subsistence only until further notice Litnik Bay to stream terminus of Afognak River
34	Herring E.O.		Herring E.O.
35	11:00 A.M. 6/24/90	9:00 P.M. 6/24/90	<u>Extension</u> for 24 hours; 9:00 P.M. 6/24 - 9:00 P.M. 6/25 <ul style="list-style-type: none"> - Alitak Bay District - Inner & Outer Ayakulik Sections
36	2:00 P.M. 6/25/90	9:00 P.M. 6/25/90 12:00 Noon 6/26/90	<u>Extension</u> for 48 hours; 9:00 P.M. 6/25 - 9:00 P.M. 6/27 <ul style="list-style-type: none"> - Alitak Bay District - Inner & Outer Ayakulik Sections <u>Opening</u> for 57 hours; 12:00 Noon 6/26 - 9:00 P.M. 6/28 <ul style="list-style-type: none"> - Southeast Afognak Section
37	12:00 Noon 6/26/90	12:00 Noon 6/27/90 9:00 P.M. 6/27/90	<u>Opening</u> for 57 hours; 12:00 Noon 6/27 - 9:00 P.M. 6/29 <ul style="list-style-type: none"> - Dog Salmon Flats Section <u>Extension</u> for 96 hours; 9:00 P.M. 6/27 - 9:00 P.M. 7/1 <ul style="list-style-type: none"> - Alitak Bay District

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Emergency Order No.	Issued	Time/Date	Effective	Action Taken
38	10:00 A.M. 6/29/90		9:00 P.M. 6/29/90	<u>Extension</u> for 96 hours; 9:00 P.M. 6/29 - 9:00 P.M. 7/3 - Dog Salmon Flats Section <u>Extension</u> for 120 hours; 9:00 P.M. 7/1 - 9:00 P.M. 7/6 - Alitak Bay District
39	11:000 A.M. 7/2/90		5:00 P.M. 7/3/90	<u>Opening</u> for 76 hours; 5:00 P.M. 7/3 - 9:00 P.M. 7/6 - Inner Ayakulik Section (flare) - Outer Ayakulik Section 9:00 P.M. 7/3/90 <u>Extension</u> for 72 hours; 9:00 P.M. 7/3 - 9:00 P.M. 7/6 - Dog Salmon Flats Section
40	1:00 P.M. 7/3/90		12:00 Noon 7/6/90	<u>Opening</u> for 57 hours; 12:00 Noon 7/6 - 9:00 P.M. 7/8 - Northwest Kodiak District <u>except</u> for the Kizhuyak Bay Section - Eastside Kodiak District - Northeast Kodiak District <u>except</u> for the Buskin River Section - Afognak District <u>except</u> for the Izhut Bay and Kitoi Bay Sections - Mainland District <u>except</u> for the Cape Igvak and Wide Bay Sections
41	11:00 P.M. 7/5/90		9:00 P.M. 7/6/90	<u>Extension</u> for 120 hours; 9:00 P.M. 7/6 - 9:00 P.M. 7/11 - Inner & Outer Ayakulik Sections - Alitak Bay District - Dog Salmon Flats Section
42	2:00 P.M. 7/8/90		12:01 A.M. 7/10/90	<u>Opening</u> for 48 hours; 12:01 A.M. 7/10 - 12:01 A.M. 7/12 - Cape Igvak Section
43	12:00 Noon 7/10/90		9:00 P.M. 7/11/90	<u>Extension</u> for 120 hours; 9:00 P.M. 7/11 - 9:00 P.M. 7/16 - Inner & Outer Ayakulik Sections - Alitak Bay District

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Emergency Order No.	Issued	Time/Date Effective	Action Taken
43 (continued)			<u>Extension</u> for 48 hours; 12:01 A.M. 7/12/90 - 12:01 A.M. 7/14 - Cape Igvak Section 12:00 Noon 7/13/90 <u>Opening</u> for 57 hours; 12:00 Noon 7/13 - 9:00 P.M. 7/15 - Alinchak Bay, Katmai, Dakavak Bay, Inner Kukak, Outer Kukak, Hallo Bay & Big River Sections 12:00 Noon 7/13/90 <u>Opening</u> for 81 hours 12:00 Noon 7/13 - 9:00 P.M. 7/16 - Northwest Kodiak District - Eastside Kodiak District - Northeast Kodiak District <u>except</u> for the Buskin River Section - Afognak District <u>except</u> for the Izhut Bay and Kitoi Bay Sections
44	11:00 A.M. 7/13/90	12:01 A.M. 7/14/90	<u>Extension</u> for 96 hours; 12:01 A.M. 7/14 - 12:01 A.M. 7/18 - Cape Igvak Section
45	12:00 Noon 7/15/90	9:00 P.M. 7/15/90	<u>Closure</u> effective 9:00 P.M. 7/15 of the "North Shelikof Seaward Zone" of the Northwest Afognak and Shuyak Is. Sections. 9:00 P.M. 7/16/90 <u>Extension</u> for 48 hours; 9:00 P.M. 7/16 - 9:00 P.M. 7/18 - Inner & Outer Ayakulik Sections 12:01 A.M. 7/18/90 <u>Extension</u> for 48 hours; 12:01 A.M. 7/18 - 12:01 A.M. 7/20 - Cape Igvak Section
46	4:00 P.M. 7/11/90	9:00 P.M. 7/18/90	<u>Extension</u> for 120 hours; 9:00 P.M. 7/18 - 9:00 P.M. 7/23 - Inner & Outer Ayakulik Sections 12:01 A.M. 7/20/90 <u>Extension</u> for 96 hours; 12:01 A.M. 7/20 - 12:01 A.M. 7/24 - Cape Igvak Section

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Emergency Order No.	Issued	Time/Date	Effective	Action Taken
46 (continued)			12:00 Noon 7/20/90	<u>Opening</u> for 57 hours; 12:00 Noon 7/20 - 9:00 P.M. 7/22 - Alinchak Bay, Katmai, and the Inner Kukak Sections - the "Shoreward Zones" only of the Dakavak Bay, Outer Kukak, Hallo Bay & the Big River Sections
			12:00 Noon 7/20/90	<u>Opening</u> for 81 hours; 12:00 Noon 7/20 - 9:00 P.M. 7/23 - Alitak Bay District - Northwest Kodiak District <u>except</u> for the Zachar Bay Section - Eastside Kodiak District - Northeast Kodiak District - Afognak District <u>except</u> for the Kitoi Bay Section and the "Seaward Zones" of the N.W. Afognak and Shuyak Islands Sections
47	12:00 Noon 7/22/90		12:01 A.M. 7/24/90	<u>Extension</u> for 48 hours; 12:01 A.M. 7/24 - 12:01 A.M. 7/26 - Cape Igvak Section
			6:00 A.M. 7/26/90	<u>Closure</u> effective 6:00 A.M. 7/26 until further notice for subsistence fishing in Litnik Bay closed waters increased to the normal subsistence markers at Last Point and River Mouth Point.
48	2:45 P.M. 7/24/90		12:01 A.M. 7/26/90	<u>Extension</u> for 69 hours; 12:01 A.M. 7/26 - 9:00 P.M. 7/29 - Cape Igvak Section
			12:00 Noon 7/27/90	<u>Opening</u> for 57 hours; 12:00 Noon 7/27 - 9:00 P.M. 7/29 - Alinchak Bay, Katmai, Dakavak Bay Inner Kukak, Outer Kukak, Hallo Bay & Big River Sections
			12:00 Noon 7/27	<u>Opening</u> for 81 hours; 12:00 Noon 7/27 - 9:00 P.M. 7/30 - Alitak Bay District - Northwest Kodiak District - Eastside Kodiak District - Northeast Kodiak District - Afognak District and the Kitoi Bay Section by flare.

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Emergency Order No.	Time/Date Issued	Effective	Action Taken
49	11:00 A.M. 7/27/90	12:00 Noon 7/28/90	<u>Opening</u> for 10 hours; 12:00 Noon 7/28 - 10:00 P.M. 7/28 - Dog Salmon Flats Section
50	12:00 Noon 7/29/90	12:00 Noon 7/30/90 9:00 P.M. 7/30/90	<u>Opening</u> for 10 hours; 12:00 Noon 7/30 - 10:00 P.M. 7/30 - Dog Salmon Flats Section <u>Extension</u> for 72 hours; 9:00 P.M. 7/30 - 9:00 P.M. 8/2 - Cape Alitak and Moser-Olga Bay Sections
51	2:00 P.M. 7/31/90	12:00 Noon 8/2/90 12:00 Noon 8/2/90 9:00 P.M. 8/2/90	<u>Opening</u> for 57 hours; 12:00 Noon 8/2 - 9:00 P.M. 8/4 - Outer Kukak, Dakavak Bay, Katmai, Alinchak, Cape Igvak and Wide Bay Sections <u>Opening</u> for 81 hours; 12:00 Noon 8/2 - 9:00 P.M. 8/5 - Halibut Bay Section - Northwest Kodiak District - Eastside Kodiak District - Northeast Kodiak District - Afognak District and the Kitoi Bay Section by flare <u>Extension</u> for 72 hours; 9:00 P.M. 8/2/ - 9:00 P.M. 8/5 - Cape Alitak and Moser-Olga Bay Sections
52	12:00 Noon 8/4/90	9:00 P.M. 8/4/90	<u>Extension</u> for 96 hours; 9:00 P.M. 8/4 - 9:00 P.M. 8/8 - Wide Bay Section - Cape Igvak Section - Alinchak Bay Section south of
57°50' N. lat.			
53	5:00 P.M. 8/5/90	9:00 P.M. 8/5/90 9:00 P.M. 8/5/90	<u>Extension</u> for 24 hours; 9:00 P.M. 8/5 - 9:00 P.M. 8/6 - Cape Alitak and Moser-Olga Bay Sections <u>Extension</u> for 72 hours; 9:00 P.M. 8/5/ - 9:00 P.M. 8/8 - Halibut Bay, Duck Bay, Izut Bay and Kitoi Bay Sections

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Emergency Order No.	Issued	Time/Date	Effective	Action Taken
54	3:15 P.M. 8/7/90		9:00 P.M. 8/8/90	<u>Extension</u> for 72 hours; 9:00 P.M. 8/8 - 9:00 P.M. 8/11 - Halibut Bay Section
			12:00 Noon 8/9/90	<u>Opening</u> for 57 hours; 12:00 Noon 8/8 - 9:00 P.M. 8/11 - Afognak District <u>except</u> for the Duck Bay, Izhut Bay and Kitoi Bay Sections - Northeast Kodiak District - Eastside Kodiak District <u>except</u> for the Seven Rivers Section - Northwest Kodiak District <u>except</u> for the Uyak Bay Section - Alitak Bay District <u>except</u> for the Humpy-Deadman Section - Outer Ayakulik Section - Inner Ayakulik Section by flare - Katmai, Dakavak, Outer Kukak, Hallo Bay and Big River Sections
55	4:00 P.M. 8/10/90		12:00 Noon 8/11/90	<u>Opening</u> for 57 hours; 12:00 Noon 8/11 - 9:00 P.M. 8/13 - Outer Karluk and Sturgeon River Sections
			9:00 P.M. 8/11/90	<u>Extension</u> for 48 hours; 9:00 P.M. 8/11 - 9:00 P.M. 8/13 - Afognak District <u>except</u> for the Duck Bay, Izhut Bay and Kitoi Bay Sections - Northwest Kodiak District <u>except</u> for the Uyak Bay and Inner Uganik Sections - Halibut Bay Section - Inner and Outer Ayakulik Sections north of 57°13'09" N. Latitude
			12:00 Noon 8/13/90	<u>Opening</u> for 57 hours; 12:00 Noon 8/13 - 9:00 P.M. 8/15 - Alinchak Bay, Cape Igvak and Wide Bay Sections
56	12:00 Noon 8/12/90		9:00 P.M. 8/13/90	<u>Extension</u> for 48 hours; 9:00 P.M. 8/13 - 9:00 P.M. 8/15 - Halibut Bay Section

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Emergency Order No.	Issued	Time/Date	Effective	Action Taken
57	1:30 P.M. 8/14/90		9:00 P.M. 8/15/90	<u>Extension</u> for 69 hours; 9:00 P.M. 8/15 - 6:00 P.M. 8/18 - Halibut Bay Section - Alinchak Bay, Cape Igvak and Wide Bay Sections
			12:00 Noon 8/16/90	<u>Opening</u> for 54 hours; 12:00 Noon 8/16 - 6:00 P.M. 8/18 - Central Section - North Cape Section - Inner and Outer Ayakulik Sections <u>north</u> of 57°13'09" N. Latitude - Cape Alitak - Moser-Olga Bay Sections - Outer Upper Station Section - Sitkalidak Section <u>south</u> of the latitude of Left Cape at 57°15'30" N. Latitude - Two Headed Section - Afognak District and the Kitoi Bay Section <u>east</u> of the ADF&G markers located at the "Jaws" at 152°20'26" W. Longitude - Katmai, Outer Kukak, Hallo Bay and the Big River Sections
58	3:00 P.M. 8/15/90		12:00 Noon 8/16/90	<u>Opening</u> for 54 hours; 12:00 Noon 8/16 - 6:00 P.M. 8/18 - Outer Karluk and Sturgeon River Sections
59	4:00 P.M. 8/17/90		6:00 P.M. 8/18/90	<u>Extension</u> for 48 hours; 6:00 P.M. 8/18 - 6:00 P.M. 8/20 - Afognak District <u>except</u> for the Shuyak Island Section - Kitoi Bay Section <u>east</u> of the "Jaws" - Central, North Cape, Outer Karluk, Sturgeon River and Halibut Bay Sections - Inner and Outer Ayakulik Sections <u>north</u> of 57°13'09" N. Latitude - Cape Alitak and Moser-Olga Bay Sections - Alinchak, Cape Igvak, Wide Bay and the Outer Kukak Sections
60	12:00 Noon 8/19/90		6:00 P.M. 8/20/90	<u>Extension</u> for 48 hours; 6:00 P.M. 8/20 - 6:00 P.M. 8/22 - Duck Cape and Izhut Bay Sections - Central and North Cape Sections

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Emergency Order No.	Issued	Time/Date	Effective	Action Taken
60 (continued)				<ul style="list-style-type: none"> - Southwest Afognak Section - Halibut Bay Section - Inner and Outer Ayakulik Sections north of 57°13'09" N. Latitude
61	11:45 A.M. 8/23/90		12:00 Noon 8/25/90	<p><u>Opening</u> for 54 hours; 12:00 Noon 8/25 - 6:00 P.M. 8/27</p> <ul style="list-style-type: none"> - Afognak District <u>except</u> for the Shuyak Island, Kitoi Bay and Perenosa Bay Sections - Central and North Cape Sections - Two Headed Section - Cape Alitak and Moser-Olga Bay Sections - Inner and Outer Ayakulik Sections <u>north</u> of 57°13'09" N. Latitude - Halibut Bay Section - Big River, Hallo Bay, Outer Kukak, Katmai, Alinchak, Cape Igvak and Wide Bay Sections
62	10:00 A.M. 8/26/90		6:00 P.M. 8/27/90	<p><u>Extension</u> for 72 hours; 6:00 P.M. 8/27 - 6:00 P.M. 8/30</p> <ul style="list-style-type: none"> - Southwest Afognak Section - Central and North Cape Sections - Cape Alitak and Moser-Olga Bay Sections - Inner and Outer Ayakulik Sections <u>north</u> of 57°13'09" N. Latitude - Halibut Bay Section
63	2:00 P.M. 8/29/90		6:00 P.M. 8/30/90	<p><u>Extension</u> for 72 hours; 6:00 P.M. 8/30 - 6:00 P.M. 9/2</p> <ul style="list-style-type: none"> - Southwest Afognak, Central, North Cape, Cape Alitak, Moser-Olga Bay and the Halibut Bay Sections
			12:00 Noon 9/1/90	<p><u>Opening</u> for 54 hours; 12:00 Noon 9/1 - 6:00 P.M. 9/2</p> <ul style="list-style-type: none"> - Mainland District <u>except</u> for the Dakavak, Inner Kukak and Outer Kukak Sections - Remainder of the Afognak District <u>except</u> for the Shuyak Island, Perenosa Bay and Kitoi Bay Sections

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Emergency Order No.	Issued	Time/Date	Effective	Action Taken
64	9:30 A.M. 9/1/90		6:00 P.M. 9/2/90	<u>Extension</u> for 96 hours; 6:00 P.M. 9/2 - 6:00 P.M. 9/6 - Cape Alitak and Moser-Olga Bay Sections
65	12:00 Noon 9/4/90		12:00 Noon 9/6/90	<u>Opening</u> for 54 hours; 12:00 Noon 9/6 - 6:00 P.M. 9/8 - Northwest Kodiak District <u>except</u> for the Inner Uganik Bay Section - Afognak District <u>except</u> for the Shuyak Island, Perenosa Bay, Kitoi Bay and the Raspberry Straits Sections - Halibut Bay Section - Mainland District <u>except</u> for the Dakavak, Inner Kukak, and Outer Kukak Sections
			6:00 P.M. 9/6/90	<u>Extension</u> for 48 hours; 6:00 P.M. 9/6 to 6:00 P.M. 9/8 - Cape Alitak and Moser Bay Sections
66	2:00 P.M. 9/7/90		6:00 P.M. 9/8/90	<u>Extension</u> until further notice 6:00 P.M. 9/8 - 6:00 P.M. 10/31 - Cape Alitak and Moser-Olga Bay Sections - Halibut Bay Section - S.W. & S.E. Afognak Sections - Northwest Kodiak District <u>except</u> for the Inner Uganik Section - Mainland District <u>except</u> for the Dakavak, Inner Kukak and Outer Kukak Sections
			12:00 Noon 9/9/90	<u>Opening</u> for 78 hours; 12:00 Noon 9/9 to 6:00 P.M. 9/12 - Inner and Outer Ayakulik Sections - Sturgeon Section - Outer Karluk Section - Shuyak Island and the Perenosa Bay Section
67	2:00 P.M. 9/11/90		6:00 P.M. 9/12/90	<u>Extension</u> until further notice 6:00 P.M. 9/12 - 6:00 P.M. 10/31 - Inner and Outer Ayakulik Sections

-Continued-

Appendix F.2. (page 11 of 11)

Emergency Order No.	Issued	Time/Date	Effective	Action Taken
68	2:00 P.M. 9/14/90		12:00 Noon 9/16/90	<p><u>Opening</u> for 54 hours; 12:00 Noon 9/16 - 6:00 P.M. 9/18</p> <ul style="list-style-type: none"> - Inner and Outer Ugak Bay Sections
69	4:00 P.M. 9/18/90		6:00 P.M. 9/18/90	<p><u>Extension</u> until further notice 9/18 - 10/31</p> <ul style="list-style-type: none"> - Inner and Outer Ugak Bay Sections
			12:00 Noon 9/20/90	<p><u>Opening</u> until further notice 12:00 Noon 9/20 - 10/31</p> <ul style="list-style-type: none"> - Shuyak Island, Perenosa Bay and the N.W. Afognak Sections - Duck Bay, Izhut Bay, Raspberry Straits and the N.E. Afognak Section - Dakavak Bay and Outer Kukak Sections

Appendix G.1. Salmon escapement surveys for the Kodiak Management Area, 1990.

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay	Observer Remarks
Relief									
251-101	6-15	Brennan	g g g	0	0	0	0	200R	- 1025 hrs. Great look at lake - nothing showing. Water abit dark. Fish right in mouth of stream, too dark to tell much.
251-101	7-12	Brennan	f g f	0	0	0	0	-	- 1005 hours. Again, little show on lake shoals. Fish in deeper water. Poor conditions for seeing fish in deep water.
251-101	7-16	Brennan	e e g	45	0	0	0	-	- 1525 hours. No show in river, no show in lake. A few fish in stream at lake mouth. Only a cursory look at bay.
251-101	8-30	Brennan	e e e	189	1	2635	6	-	- Zero fish in lower 1/2 of stream, mouth or outer bay.
251-101	9-13	Brennan	f f f	0	0	0	0	500Co	- 1235 hrs. Two areas of fish. Heavy jumpers by inner island and another by commercial markers. No stream survey.
Waskanareaska Creek									
251-102	8-30	Brennan	e e e	0	0	935	0	175P	- Good flow but water down. Lots and eagles and bear predation.
Malina River									
251-105	6-15	Brennan	f f p	0	0	0	0	-	- 1030 hrs. Nothing in lakes. Maybe in stream. Nothing at mouth or in lagoon.
251-105	7-12	Brennan		100	0	0	0	-	- 1030 hours. Between lakes 90-100 reds; poor look at stream. Nothing seen in lagoon, but fish jumping off mouth to south.
251-105	7-16	Brennan	e f p	500	0	0	0	200R	- 1540 hours. Nothing seen in upper lake, and only 30-50 in between lakes. None seen on shoals of lower lake., Lots of fish in stream and still very bright. Fish in lagoon, but none seen offshore.
251-105	8- 9	Prokopowich	g	3100	0	48400	0	-	- Pinks looked good. Most of reds seen in upper lake inlet. Poor visiblity in remainder of lakes.
251-105	8-13	Brennan		3800	0	53700	0	-	500P 1445 hrs. Stream count includes 3,500 pinks in between lakes. Reds in lakes or just below first lake. River well seeded; count conservative.
251-105	8-15	Honnold	g	1301	0	0	0	-	- Counts from FRED crew. Foot survey of Upper Lake spawners.
251-105	9- 9	Honnold	g	1300	0	0	0	-	- Count from FRED crew. Foot survey of Upper Lake spawners.
251-105	10-23	Honnold	g	0	1035	0	0	-	- Counts from FRED Div. Aerial survey by Jack Lechner.
Long Lagoon									
251-301	8-13	Brennan		0	0	1200	400	-	- 1435 hrs.

-Continued-

Appendix G.1. (page 2 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay		Observer Remarks
Thorsheim Creek										
251-302	6-15	Brennan	g g g	0	0	0	0	250R	-	1045 hrs. Likely more fish in bay out front but nothing really showing in kelp. Jumpers toward lagoon and at creek mouth.
251-302	7-12	Brennan		500	0	0	0	300R	-	1045 hours. In lagoon only one batch of 300 seen. In mouth 3-500. No stream survey.
251-302	7-15	Brennan	f f f	0	0	0	0	150R	-	1530 hours. Not much show on reds - no pinks. Reds were in hole behind weir site.
251-302	8-13	Brennan		0	0	0	0	1200P	1200P	1430 hrs.
South Arm Creek										
251-403	7-29	Prokopowich	f	0	0	0	0	1500P	-	Poor visibility in stream.
251-403	8-13	Brennan		0	0	1000	0	-	-	1425 hrs.
East Arm Creek										
251-404	7-15	Brennan	g g g	0	0	0	0	-	200P	1540 hours. A few jumpers in bay out by cabin. No show otherwise.
251-404	7-29	Prokopowich	f f f	0	0	1000	0	5000P	16000P	Looks good for this time of year.
251-404	8-13	Brennan	f f f	0	0	8400	0	1000P	-	1420 hrs. Not quite set up right, survey conservative. 84+68+10
SW Redfox Creek										
251-504	8-18	Prokopowich	g	0	0	0	0	1500P	-	Fish outside markers. One seiner with load.
Big Bay Creek										
251-601	6-15	Brennan	g g	0	0	0	0	-	-	1055 hrs. No show.
251-601	9-30	Weir Count	e f	0	1535	849	0	-	-	Counts provided by Alaska State Parks on Shuyak. No estimate of fish remaining in lagoon. Weir in operation from 8/13 through 9/30.
Carry Bear Creek										
251-705	9-17	Weir Count	e f	0	926	682	0	-	-	Weir count provided by Alaska State Parks crew on Shuyak. Weir in operation from 8/12 through 9/17.
Big Waterfall										
251-821	8-13	Brennan	e e	0	0	0	0	-	5500P	1320 hrs. Fish right up on beach. One purse seiner working. No stream survey.
251-821	8-18	Prokopowich	e	0	0	0	0	1400P	-	Fish schooled off of mouth. No stream survey.
Little Waterfall										
251-822	8-13	Brennan	f e e	0	0	0	0	4500P	-	1315 hrs. A few fish sitting up by stream mouth. Hard to see, 2 purse seiners working. No stream survey.
251-822	8-18	Prokopowich	g	0	0	0	0	12500P	-	No stream survey. Several small schools along beach outside markers.

-Continued-

Appendix G.1. (page 3 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish		Observer Remarks
				Reds	Coho	Pink	Chum	Mouth	Bay	
251-822	9-15	Honnold	g g g	0	10	42060	18	4940P	-	Counts from FRED Crew at Waterfall Fish Pass. Streamfish are those actually counted through the fishpass; Mouthfish are those estimated to be below the fishpass. Total estimated escapement is 47,000 pinks.
Portage Creek										
251-825	6-15	Brennan	g g g	0	0	0	0	-	-	1125 hrs. Too dark to see fish in lake.
251-825	7-15	Brennan	- f f	400	0	0	0	-	-	1555 hours. No fish showing outside. No stream survey.
251-825	8- 9	Prokopowich	p	0	0	0	0	-	-	Poor visibility. Couldn't see in water. Jumpers seen only.
251-825	8-18	Prokopowich	g	0	0	8500	0	-	-	Fish below weir. Few coho jumpers.
251-825	9- 8	Weir Count	e f	3670	2777	6547	3	1500Co 1000P	-	Final weir count. Mouth count is estimate by crew of fish remaining in lagoon.
Paul's Bay										
251-831	6-15	Brennan	g g g	0	0	0	0	-	5000R	1100 hrs. Fish inside markers.
251-831	9- 8	Weir Count	e f	14510	3668	775	0	-	-	Final weir count. No fish in bay.
Seal Creek										
251-901	8- 9	Prokopowich	p	0	0	1000	0	-	-	-
251-901	8-13	Brennan	e e e	0	0	4600	0	-	2900P	1335 hrs. Balls of fish outside; looks good. Fish were spread in creek.
Ishut Bay										
252-30	7-30	Brennan	p p	0	0	0	0	-	-	1715 hours. Dark - No show.
East Saposia Creek										
252-301	8-29	Brennan	e e e	0	0	0	0	-	-	Water too low.
Grassy Lagoon Creek										
252-302	8-29	Brennan	e e e	0	0	0	0	150P	-	Lots of bear activity - no live fish in stream.
Saposia Bay										
252-306	8- 9	Prokopowich	f	0	0	0	0	4000P	-	Poor visibility in creek.
252-306	8-13	Brennan	e e e	0	0	400	0	-	-	1345 hours. No much show.
252-306	8-29	Brennan	e e e	0	0	204	0	3500P	-	Heavy bear activity! Sow with 2 cubs prevented surveying more than 1/2 mile of stream.
Ruth Bay										
252-307	8-13	Brennan	e e g	0	0	0	0	-	-	1350 hrs. Deadsville. No stream survey.
252-307	8-29	Brennan	e e e	0	0	0	0	69Co	-	Water low. No fish in stream but coho right at mouth. Falls 3/4 mile up looks to be impassable.

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Appendix G.1. (page 4 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay	Observer Remarks
Barrier Creek									
252-308	8-29	Brennan	e e e	0	0	0	0	250Co 50P	- No fish in stream. Very low water. Coho milling in front may NOT be bound for this system.
Left Hand Bay									
252-309	8-29	Brennan	e e e	0	0	7	0	-	- Water low but passable. Not too many fish. Large male bear working stream heavily.
Duck Bay ??									
252-31	7-30	Brennan	p p	0	0	0	0	-	- 1645 hours. No fish visible jumping or traveling. Purse seiners working Duck Cape heavily.
252-310	8-29	Brennan	e e e	0	0	0	0	100Co	- No fish in stream. Water very low. Coho most likely bound for another river.
Kitoi Bay ??									
252-32	7-30	Brennan	p p	0	0	0	0	-	- 1700 hours. Only a couple seiners left in bay. No heavy sign of fish.
Little Kitoi									
252-323	8-13	Brennan	g g	0	0	0	0	48000P	- 1420 hrs.
Big Kitoi									
252-324	8- 9	Prokopowich	f	0	0	0	0	-	7000P Pinks by crab lagoon. Poor visibility in rest of bay.
252-324	8-13	Brennan	g g	0	0	0	0	6900P	282000P 1400 hrs. Inside net 6,900. At outside of net 123,000. In bay 76,000. To jaws 29,000. Outside jaws 49,000. By McDonald's lagoon 5,000.
252-324	8-13	Prokopowich	f	0	0	0	0	-	210000P Est. 130,000 P. inside net. 80 - 100,000 pinks outside net. Few small schools moving through jaws.
Danger Bay ??									
252-33	7-30	Brennan	f p p	0	0	900	0	-	- 1630 hours. Flew both shorelines and creeks at head of bay. Not much showing. No signs of fish outside. Only a few fish in lower river. Nothing seen in kelp out front.
N.E. Danger Creek									
252-331	8-28	Brennan	e e e	0	74	31	0	300Co	- Water very low but still flowing. All fish in pool just above beach. No fish in stream. Active jumpers in lagoon. See trip report.
Big Danger									
252-332	8- 9	Prokopowich	f	0	0	4500	0	1000P	- -

-Continued-

Appendix G.1. (page 5 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish	Mouth Bay		Observer Remarks
				Reds	Coho	Pink	Chum				
252-332	8-13	Brennan	e e e	0	0	4000	0	-	-		1125 hrs. 2,000 pinks below forks; 1,600 up east forks; only 400 up east forks. Again, poor look in forested sections. Engine trouble!
252-332	8-28	Brennan	g g g	0	0	0	0	100Co	-		Survey of mouth from skiff. No stream survey. See trip report.
East Danger Creek											
252-333	8-13	Brennan	f e e	0	0	0	0	400P	-		1123 hrs. A few fish in lagoon. Lousy look at creek so no attempt at an estimate.
Old Beaver Creek											
252-334	8-28	Brennan	e e e	0	0	22	0	50Co	-		Good flow but low. No fish. See trip report.
??											
252-336	8-28	Brennan	e e e	0	0	20	0	-	-		-
Afognak River											
252-342	9-17	Weir Count	e f	90666	12130	27808	0	1250Co	-		Final weir counts. Mouth count is an estimate by the crew of fish remaining in the lagoon.
Marks Bay											
252-343	7-29	Prokopowich	f	0	0	4000	0	6000P	-		Poor visibility in most of creek.
252-343	7-30	Brennan	g f p	0	0	3200	0	-	-		1600 hours. Again, outside visibility obstructed by weather. Visibility in lagoon good, but little showing. Fish are hanging at forks. Surveyed up both forks.
252-343	8- 9	Prokopowich	p	0	0	20000	0	-	-		Poor visibility in river and bay.
252-343	8-13	Brennan	g e e	0	0	12350	0	-	450P		1115 hrs. Difficult to see in forested sections. Likely a lot more fish in those areas.
Little River											
253-115	7-16	Brennan	e g p	12000	0	0	0	-	-		1745 hours. "Stream" fish breakdown: 1,400 in river, 10,600 in lake at tributaries.
253-115	8- 5	Prokopowich	e	0	0	81000	0	6000P	-		Looks excellent.
253-115	8- 9	Brennan	p p p	0	0	5800	0	-	-		1705 hrs. Poor survey. Only saw fish in upper 1/3. poor look at middle of river. Little in lower end.
253-115	8-14	Hander	g	26300	0	120800	0	-	-		1145 hours. Mid high incoming tide. Reds seen in lake, most are beach spawners. Observed approximately 10,000 Dolly Varden in lake. Good stream flow.
253-115	8-15	Brennan	e e e	0	0	59500	0	15000P	4000P		1210 hours. Some glare but good look. Could be more fish in mouth. Heavy fish in first 1/2 mile. Most fish within lower four miles.
253-115	9-25	Hander	g f	6000	0	250	0	-	-		0905 hrs, mid high tide, surveyed from mouth to lake. Reds were all shore spawners at the south end of the lake. Visibility was fair to poor in shaded areas of the river. Stream flow good.

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Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth Bay	Fish Bay	Observer Remarks	
S. Arm Uganik											
253-121	6-27	Prokopowich	f		0	0	0	0	-	1000Ch	Fish in small scattered schools throughout bay.
253-121	7-10	Hander	g g		0	0	0	0	-	-	1400 hours, low tide. Few jumpers off mouth. Stream flow good.
253-121	7-24	Brennan	p p p		0	0	0	0	200P	-	1145 hours. Some jumpers and finners on east shore by flats. Little show. No stream survey.
253-121	8-14	Hander	g		0	0	1700	0	-	8000P	1200 hours. Mid low tide, pinks are up to beaver ponds, good stream flow, very conservative instream estimate.
253-121	8-17	Brennan	p p p		0	0	900	0	2000P	-	1210 hours. No sign of any activity outside. No jumpers or finners.
Uganik River											
253-122	6-27	Prokopowich	g		35000	0	0	0	-	-	Reds in lake. 15,000 at outlet of lake, remainder in south 1/2 of lake and lake inlet.
253-122	7-16	Brennan	e f f		97300	0	2800	2000	-	-	1850 hours. Limited bay survey; flew river to lake. "Stream" reds breakdown: below weir 7,800; in river 7,000; in lower 1/2 of lake 52,000; at tributaries in upper lake 27,500; in tributaries 3,000.
253-122	7-24	Brennan	p p p		2500	0	1500	1500	-	5000Ch	1200 hours. Poor look...low tide and poor visibility. No show on flats or along shores. Few fish in channel on flats. School of dogs at Packer's Spit.
253-122	7-29	Prokopowich	g		0	0	40000	8000	-	-	Survey below weir only. Very little show in bay.
253-122	8- 5	Prokopowich	e		0	0	36000	0	-	6000P	Fish count below weir. Bay fish on east side.
253-122	8- 9	Brennan	f f f		0	0	0	0	1600R 35000P 3400Ch	-	1720 hrs. Fish counted below weir only. No stream survey. Few chums in sloughs.
253-122	8-13	Prokopowich	e		0	0	51000	0	-	-	Fish below weir. Bay looked very quiet.
253-122	8-14	Hander			0	0	70000	2000	-	-	1230 hours. Low tide. These numbers refer to fish below the weir only. Good stream flow.
253-122	8-15	Brennan	e e e		0	0	58000	0	1800P	-	1242 hours. Looked only below weir. Fish well spread in main channels,. Most will likely spawn below weir., Nothin inside slough to north. Several thousand right below weir.
253-122	8-17	Brennan	p p		0	0	0	0	-	-	1215 hours. No stream survey. Quick look on outside. Nothing visible.
253-122	8-18	Prokopowich	g		0	0	55000	8000	-	-	Looks better. No bay build up. All fish below weir. Few small schools of pinks along Packer's Spit.
253-122	8-21	Prokopowich	e		0	0	87500	0	-	500P	Count for entire river. Est. 47,500 pinks above weir.
253-122	8-24	Prokopowich	e		0	0	35000	0	-	300P	Count below weir. Bay fish are two small schools along Packer's Spit.
253-122	9- 7	Prokopowich	e		0	4000	29000	0	-	-	Estimates are fish below weir. Very little showing in bay.

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Appendix G.1. (page 7 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth	Fish Bay	Observer Remarks
253-122	10-14	Weir Count	e f	65551	5261	77015	2560	-	-	Final weir count provided by USFWS crew at Uganik. No estimate of fish remaining below the weir, on the flats, or in the sloughs. Weir in operation from 6/25 through 10/14.
253-122	11- 5	Hander	f p	0	1435	0	0	-	-	1505 hrs. High tide, surveyed 18 miles from mouth. Stream flow moderate. Coho spawning from 1/2 mile up from lake to upper reaches of river.
Terror River										
253-331	7-11	Hander		0	0	1500	0	-	-	1420 hours, low incoming tide, pinks were less than 1/4 mile from mouth. Stream flow good.
253-331	7-16	Brennan		0	0	12000	5000	-	-	1900 hours. Only surveyed lower 1 mile of stream...fish all stacked from mouth to 1/2 mile up. Tide high - fish may wash out. Nothing showing on flats. A couple jumpers outside.
253-331	7-19	Blackett	g g f	0	0	14300	800	-	50P	Water flow estimated from air at 150-200 cfs. Majority of pinks (14,100) in intertidal, delta channels, and lower river up to the USGS stream gauge. All chums above stream gauge. No salmon in Consteration Creek.
253-331	7-29	Prokopowich	g	0	0	20000	5000	-	6000P	-
253-331	8- 5	Prokopowich	g	0	0	28000	5000	-	-	Very little show in bay.
253-331	8- 9	Brennan	f f f	0	0	31700	0	-	15000Ch	1730 hours. Few fish in side creeks, zero in mouth. Balls of bright chums outside. Estimate likely high and some could be pinks.
253-331	8- 9	Prokopowich	g	0	0	31000	0	-	12000P	Most fish in lower end.
253-331	8-13	Prokopowich	g	0	0	30000	3000	-	7500P	Bay fish on east side.
253-331	8-14	Hander	g	0	0	33500	1500	-	-	1252 hours. Low tide, scattered fish in flats, good stream flow.
253-331	8-17	Brennan	f f f	0	0	27250	1500	1500P 500Ch	-	1240 hours
253-331	8-21	Blackett	g g g	0	0	10300	200	-	50P	-
253-331	8-21	Prokopowich	g	0	0	21500	0	-	1000P	No build ups, not many new fish in river.
253-331	9- 8	Blackett	g g g	0	30	26620	200	-	-	300 pink carcasses upstream of Four Mile Creek.
253-331	9-25	Blackett	f f f	0	30	3000	0	-	-	-
Baumann's										
253-332	7-16	Brennan	g g g	0	0	0	0	-	-	1920 hours. No fish along shore, on flats, or in river.
253-332	8- 5	Prokopowich	g	0	0	15000	0	-	-	Nothing seen off mouth.
253-332	8- 9	Brennan	p f f	0	0	15000	0	-	-	1745 hrs. Poor look at stream. Nothing at mouth or outside.
253-332	8-13	Prokopowich	f f f	0	0	18000	0	-	-	Visibility only fair...shadows in the canyon.
253-332	8-17	Brennan	f f f	0	0	14500	0	400P	-	1250 hours.
7-Mile Beach										
254-103	8-21	Prokopowich	g	0	0	0	0	1200P	-	Didn't survey creek.

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Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish	Observer Remarks
				Reds	Coho	Pink	Chum	Mouth Bay	
Uyak River									
254-202	7-10	Hander	g f	0	0	0	400	- -	1911 hours, high tide. All fish within 1/4 mile of river mouth, stream flow good.
254-202	7-24	Brennan	f f f	0	0	0	0	- -	1100 hours. Almost no show. A few jumpers outside - too dark to get count. Nothing on flats, in creek mouths or along east or west shores. Surveyed only 1/4 mile of creek.
254-202	7-25	Hander	g	0	0	50	2500	- -	1253 hours, low tide, surveyed entire length of stream. Low stream flow, fish scattered into upper reaches of river.
254-202	7-29	Brennan	p p	0	0	0	0	- -	1320 hours. Quick look at east side. Poor conditions. No real show. No stream survey.
254-202	8- 5	Prokopowich	g	0	0	10000	6000	- -	Very little show off mouth. Only a few scattered schools along shore to Parks cannery.
254-202	8- 8	Hander	f	0	0	4500	2300	- -	1313 hrs, low tide. Jumpers seen off mouth. Low water flow.
254-202	8- 9	Brennan	f f f	0	0	0	0	10500P -	1555 hrs. No fish seen in creek and not much at mouth.
254-202	8-13	Prokopowich	e	0	0	20000	0	3000P -	Very little show in bay.
254-202	8-15	Brennan	e e g	0	0	11650	4900	400P - 600Ch	1105 hours. Excellent look, but few fish. Almost nothing on flats. Less than 1,000 in sloughs, Fish mostly situated in lower river. Nothing above 3 miles upstream.
254-202	8-24	Prokopowich	e	0	0	14000	0	- -	No fish showing in bay. Most fish in creek appeared to be new fish.
254-202	9-25	Hander	g	0	820	0	0	- -	1120 hrs. low tide, surveyed whole system, coho were in the lower 1.5 miles of river. Good stream flow. Observed approximately 2,000 Dolly Varden.
254-202	10-23	Hander	g g	0	290	0	0	- -	1258 hrs. mid high incoming tide. Surveyed 6 miles from mouth, stream flow good. Observed coho in the lower 4 miles of river.
254-202	11- 5	Hander	g f	0	115	0	0	- -	1341 hrs. High tide, surveyed 6 miles from mouth, stream flow low. Stream was dry approximately 2 miles up from mouth for about a mile stretch. All coho found below dry area.
East Uyak Creek									
254-203	7-10	Hander	g g	0	0	0	0	- -	1920 hours, high tide. No fish. Stream flow good.
254-203	7-25	Hander	f	0	0	0	700	- -	1312 hours, low tide, low stream flow.
254-203	8- 5	Prokopowich	g	0	0	1500	0	- -	Partial survey of lower end of creek only.
254-203	8- 8	Hander	g	0	0	600	0	- -	1330 hrs. Low water flow.
254-203	8- 9	Brennan	g	0	0	1300	0	500P -	1550 hrs. Dead
254-203	8-15	Brennan	e e e	0	0	1050	0	50P -	1120 hours. A few schools to south on beach, possibly headed inside. Very little right at mouth. Lower river very poor, upper river worse.
Browns Lagoon									
254-204	7-24	Brennan	f f f	0	0	500	0	- -	1120 hours. No show outside but poor look. A few fish in lower stream.

-Continued-

Appendix G.1. (page 9 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth	Fish Bay	Observer Remarks
254-204	8- 5	Prokopowich	g	0	0	13000	0	-	-	No show in lagoon.
254-204	8- 9	Brennan	f f f	0	0	16000	0	-	-	1535 hrs. No show outside.
254-204	8-13	Prokopowich	e	0	0	36500	0	-	-	Nothing seen in bay. Good distribution.
254-204	8-15	Brennan	e e g	0	0	19700	0	-	-	1140 hours. Fish mainly situated in lower 1/3 of river. Well spread out, but a lot of empty areas.
254-204	8-24	Prokopowich	e	0	0	15000	0	-	-	No fish seen off mouth.
254-204	9-25	Hander	g	0	650	0	0	-	-	1010 hrs. low tide, stream flow good. Coho found in lower 2 miles of river.
Larsen Bay Creek										
254-213	7-24	Brennan	f f f	0	0	0	0	-	-	1045 hours. No show in bay or off tributaries.
Zachar Bay										
254-30	7-24	Brennan	p p	0	0	0	0	-	-	1130 hours. Nothing showing.
254-30	8-17	Brennan	p p	0	0	0	0	2000P	-	1200 hours. Dark, overcast and windy. Poor conditions. No activity on outside. One school right in channel on flats. No stream survey.
Zachar River										
254-301	6-27	Prokopowich	f	0	0	0	0	1500Ch	1000Ch	Didn't fly stream.
254-301	7-11	Hander		0	0	0	0	-	-	1340 hours, low tide. No fish observed in stream or off mouth. Good stream flow.
254-301	7-16	Brennan	e g p	0	0	0	3800	-	50Ch	1820 hrs. Only one small school on beach outside. Nothing showing along north shore, nothing on flats (2 jumpers). Fish all in lwer river. Surveyed 2 miles of stream.
254-301	8- 5	Prokopowich	g	0	0	18000	12800	-	6000P	-
254-301	8- 6	Hander	f	0	0	13500	4600	-	-	1735 hrs, mid high outgoing tide. Fair to poor light with some glare. Moderate water flow. Fish approximately 8 miles up river.
254-301	8- 8	Hander	g	0	0	27800	4800	-	-	1730 hrs, high tide. Large group of fish in lower 1/2 mile of river. Moderate water flow. Low light conditions...difficult to speciate in some areas.
254-301	8- 9	Brennan	f f f	0	0	1500	200	21000P 3000Ch	350P	1510 hrs.
254-301	8-13	Prokopowich	g	0	0	37500	0	9000P	-	No show in rest of bay.
254-301	8-15	Brennan	e e g	0	0	23500	0	-	-	1150 hours. Nothing in bay.
254-301	9-25	Hander	g f	0	10100	0	0	-	-	1035 hrs., low tide, surveyed approximately 15 miles up from mouth. Coho found in upper 10 miles and into the south fork of upper river. Good stream flow. Observed approximately 2,000 Dolly Varden.
254-301	10-23	Hander	g g	0	3610	0	0	-	-	1220 hrs., low tide, surveyed 20 miles from mouth. Stream flow good. Observed coho scattered from mile 3 to about a mile past south fork in upper river. Looked at north fork also.

-Continued-

Appendix G.1. (page 10 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay		Observer Remarks
254-301	11- 5	Hander	g f	0	1970	0	0	-	-	1405 hrs. 1,500 dolly varden. High tide, surveyed 19 miles from mouth. Stream flow low. Coho scattered from about mile 4 from mouth to about a mile past the forks in the upper river. Spawning in and (?)
<i>Spiridon River</i>										
254-401	7-11	Hander		0	0	0	0	-	-	1350 hours, low tide, no fish observed in stream or off mouth. Good stream flow.
254-401	8- 5	Prokopowich	f	0	0	0	5000	-	-	Water muddy. Very few jumpers in bay.
254-401	8- 8	Hander	g	0	0	0	2050	-	-	1705 hrs, high tide. Surveyed to forks in upper river. Very turbid water, high water flow. Chums in Munsey's Lake and next creek below the forks to the north.
254-401	9-25	Hander	g g	0	3800	800	0	-	-	0953 hrs, low tide. Observed about 3-4,000 Dolly Varden in stream as well as a red salmon above confluence of Munsey's Creek. Stream flow good. Surveyed 10-12 miles from mouth.
254-401	11- 5	Hander	g p	0	2280	0	0	-	-	1430 hrs. High tide. Surveyed 21 miles from mouth, moderate to low stream flow. Spawning occurring from about mile 6 from mouth to about a mile past forks in upper river.
<i>Chief Cove</i>										
254-404	8-21	Prokopowich	g	0	0	2000	0	500P	-	-
<i>Karluk River</i>										
255-101	6- 6	Brennan	g g	0	0	0	0	-	5000R	1520 hrs. Survey of lagoon and outside beach. Pretty windy so quick look. Only a few fish just outside mouth visible. No stream survey.
255-101	6-12	Brennan	e g f	17000	0	0	0	15000R	-	1130 hrs. Of stream fish 5,000 below weir, in river, the rest in upper lagoon - couldn't see in lower. Lots of fish at mouth - both inside and just outside.
255-101	6-25	Brennan	g g g	2000	0	0	0	4000R	-	1500 hrs. Fish down in mouth of lagoon or in lower river. Nothing in between! Good look.
255-101	6-27	Prokopowich	g g	0	0	0	0	-	3000R	Reds in 6 schools by Tanglefoot. Very few fish in lagoon. Two school @ 150 each by waterfalls.
255-101	7-24	Brennan	p p p	0	0	31000	0	15000P	19000P	1025 hours. Jumpers from Cape Uyak south. Saw 19,000+ pinks on beach by Pafco Point. Lots of jumpers south of mouth on Tanglefoot (No good #'s though). 15,000+ pinks right at mouth and in lower channel. Nothing showing in lower lagoon. In upper lagoon 21,000 along shorelines plus 10,000 in middle. No count of King Hole, so this count is very conservative.
255-101	7-29	Prokopowich	f	0	0	0	0	115000P	95000P	115,000 pinks in lagoon. 70,000 pinks mouth to north bluff, 10,000 pinks at Tanglefoot.

-Continued-

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Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth	Fish Bay	Observer Remarks	
255-101	8- 5	Prokopowich	g		0	0	500000	0	10000P	-	Very little show on outside. Lagoon looks full. All fish below weirs.
255-101	8- 9	Brennan	p p p		0	0	0	0	-	-	1650 hrs. No stream survey. Very dark water so impossible to estimate numbers or species composition. Few jumpers outside. Quick look.
255-101	8-17	Brennan	p p		0	0	0	0	-	-	1130 hours. Very dark, gusty S.E. wind. Impossible to estimate total number or even species. Composition heavy, heavy jumpers outside from Tanglefoot to waterfall, and thick in lower 1/3 of lagoon. Quiet in upper 2/3. No stream survey.
255-101	8-18	Prokopowich	g		0	0	0	0	200000R 100000P	-	Est. 250,000 - 300,000 fish in lagoon. Est. 70% reds plus 1,800 fish at lagoon mouth.
255-101	8-21	Prokopowich	f		0	0	0	0	40000P	-	Poor to fair visibility in lagoon. Outside lagoon - good jumpers from mouth to Tanglefoot. Very few north to waterfalls. 40,000 pinks below weir. 150,000 - 200,000 mixed pinks reds, and coho in lagoon. Pinks appear to be in upper portion of lagoon.
255-101	8-24	Prokopowich	f		0	0	0	0	100000R 250000P	100000R	Windy. Est. 250,000 pinks below weir to King Hole; 75,000 - 100,000 Reds in lagoon; 75,000 - 100,000 Reds outside lagoon.
255-101	9- 7	Prokopowich	e		0	0	0	0	250000R	1800R 1800Co	Very good visibility for once. Est. 200,000 - 250,000 reds in lagoon and 3,500 mixed coho and reds off of lagoon mouth. A few coho mixed in lagoon as well. Very little show of jumpers off shore.
255-101	9- 8	Weir Count	e f		513088	1010	3423969	150	225000R 13000Co 250Ch	-	Final weir count. Mouth counts are estimates by crew of fish remaining in lagoon. Plus weir count of 14,442 king salmon.
255-101	10- 1	Hander	g		29000	28275	0	0	-	-	1530 hrs., high tide. Stream flow good. Most fish were between the portage and the outlet of the lake. About 1,500 coho in the lagoon. 15 coho in O'Malley, 200 coho in Thumb.
255-101	10-23	Hander	f p		0	16520	0	0	-	-	1543 hrs. High tide, started survey at the portage and worked on up river to lake outlet. Also surveyed Thumb and O'Malley Rivers. Stream flow high.
255-101	11- 5	Hander	g		22000	19255	0	0	-	-	1147 hrs. Surveyed from the Portage up to the lake and Thumb and O'Malley lakes and rivers, surveyed northeast side of Karluk Lake. Survey covered approximately 25 miles. Stream flow good. Spawning from Portage to lake outlet.
Red River											
256-201	6- 6	Brennan	g g g		9000	0	0	0	5000R	20000R	1600 hrs. Fish along beach to north, "rolling in surf". Also some right at mouth and pushing into lower river.
256-201	6-12	Brennan	p p		0	0	0	0	-	-	1200 hrs. Fog zone on this side, impossible to spot fish - 83 purse seine vessels and 10 tenders between Gurney Bay and Red River.
256-201	7-29	Prokopowich	f		0	0	0	0	35000R 95000P	-	No survey below weir. Fish off mouth and to the north.

-Continued-

Appendix G.1. (page 12 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum	Build Up Fish Mouth Bay	Observer Remarks
256-201	8- 5	Prokopowich	g	0 0 0 0	40000R 250000P	Fish off the mouth to north along beach and toward the island. Additional show north to Old Red River.
256-201	9- 8	Weir Count	e f	371232 17539 707872 107	50R 5000Co 500P 10Ch	Final weir counts. Mouth counts are estimates by crew of fish remaining in lagoon. Plus weir count of 11,251 king salmon.
256-201	10- 1	Hander	g	0 9310 0 0	-	1140 hrs., high tide. Stream flow good to high, conservative estimate on coho due to poor visibility in some areas of lower river. Approximately 52,000 in Red Lake.
256-201	10-29	Hander	g g	9500 3480 0 0	-	1345 hrs., mid high tide stream flow good. Surveyed 40 miles from mouth, including Bare and Red Lake. All sockeye seen in Red Lake. Started seeing coho approximately 5 miles up from mouth and then were scattered through the rest of the area surveyed. Shaded areas in upper river made poor survey conditions.
Sturgeon River						
256-401	6-27	Prokopowich	e	0 0 0 90000	-	Most chums in upper lagoon. 20,000 chums were in lower lagoon near mouth. Very few in river.
256-401	7-10	Hander	g g	0 0 0 29000	150000Ch	1705 hrs. High tide. Chums scattered in upper 10-12 miles of river. 1150 above fork in upper river. Many jumpers off mouth. Average stream flow.
256-401	7-25	Hander	g	0 0 3500 79500	300P	0945 hours. Low tide, approximately 5,000 chum carcasses in upper 8-10 miles of river. Chums scattered evenly in upper 8-10 miles of river. Low stream flow, 300 pinks on south side of lagoon.
256-401	7-29	Prokopowich	g	0 0 0 0	-	No stream survey. Fish along beach north of lagoon offshore.
256-401	8-14	Brennan	g g f	0 0 36600 800	-	1410 hours. Nothing visible outside, or in channels of lagoon. Good show of pinks in lower portion of river. Chums about gone.
256-401	9- 7	Prokopowich	g	0 3200 0 0	-	Most of coho at upper portion of lagoon near stream.
256-401	9-25	Hander	e g g	0 3260 0 0	-	1320 hrs., low tide, stream flow good. Surveyed 15 miles from mouth. Coho concentrated between 6 and 10 miles up river. 2-3,000 Dolly Varden.
256-401	10-23	Hander	f p	0 1575 0 0	-	1504 hrs. Mid high incoming tide. Surveyed 17 miles from mouth. Stream flow high. Began seeing fish at about mile 3 and were scattered into headwaters.
East Sturgeon River						
256-402	7-10	Hander	g f	0 0 0 5300	55000Ch	1745, high tide. Fish scattered in upper 4 miles of the river. Average stream flow.
256-402	7-25	Hander	g f	0 0 0 28400	20000Ch	1020 hours, low tide, chums scattered evenly in upper 6-8 miles of river, stream flow low.
256-402	8-14	Brennan		0 0 1600 0	-	1450 hours. Not much showing outside. Only a few fish in creek.

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Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum	Build Up Fish Mouth Bay	Observer Remarks
256-402	9-25	Hander	g	0 600 0 0	- -	1350 hrs, low tide, surveyed 7 miles from mouth. Coho found between 3 and 5 miles upriver. Observed 4-5,000 Dolly Varden.
256-402	10-23	Hander	f p	0 150 0 0	- -	1530 hrs. mid high incoming tide, surveyed 7 miles from a point approximately 2 miles up from mouth. Stream flow high.
Sukhoi Lagoon						
257-10	7-18	Brennan	- f f	0 0 0 0	17000Ch -	1720 hrs. No fish on flats off tributaries; all fish in lower channel. Some in mouth. Tide low so likely more fish outside.
Big Sukhoi						
257-102	7-11	Hander		0 0 0 0	- -	0953 hours, mid/low outgoing tide, no fish in stream. A couple of jumpers 1/2 mile west of stream mouth. Good stream flow.
257-102	7-25	Hander	g	0 0 0 3730	- -	1148 hours, low tide. Surveyed 5 miles up from mouth of creek, fish were in lower 3 miles. Stream flow low. Pinks and chums mixed all along northwest lagoon shore and jumpers at lagoon outlet.
257-102	8- 5	Prokopowich	g	0 0 0 3400	3000Ch -	Poor visibility in lagoon.
257-102	8- 8	Hander	g g	0 0 7800 1350	17000P -	1140 hrs, low tide. Pinks lined up along NE shore of Sukhoi Lagoon. Good water flow.
257-102	10- 1	Hander	g	0 1015 0 0	- -	1327 hrs., high tide. Fish approximately 1 mile past either fork of creek. Dolly Varden are scattered from mouth to approximately 7 miles up river. Stream flow good.
257-102	10-29	Hander	g p	0 375 0 0	- -	1315 hrs. Mid high tide, stream flow good. Surveyed 6 miles from mouth. Ice on south 1/3 of lagoon.
Akalura Creek						
257-302	6-21	Brennan	f f	0 0 0 0	- -	1130 hrs. Jumpers by markers to east, off dock and along west side of bay. Upper Station fish?? No estimate.
257-302	6-25	Brennan	g g f	0 0 0 0	- -	1400 hrs. Nothing showing.
257-302	9-21	Weir Count	e f	47181 4232 0 0	- -	Final weir count. No estimates for fish remaining in lagoon. Weir in operation 5/27 through 9/21.
Silver Salmon Creek						
257-303	7-10	Hander	g g	0 0 0 0	- -	1815 hours, mid tide. No fish observed in lake, lagoon or off mouth. Good stream flow.
257-303	7-25	Hander	g	3000 0 30 0	- -	1130 hours, low tide. Reds were all grouped at stream mouth at upper end of lake, pinks were at lagoon outlet, stream flow low.
257-303	8- 8	Hander	g g	5110 0 0 0	- -	1115 hrs, mid tide. Reds approximately 3 miles upstream from Silver Salmon Lake. Low water flow.

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Appendix G.1. (page 14 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay		Observer Remarks	
257-303	10- 1	Hander	f		0	0	0	0	-	-	1300 hrs, high tide. Coho present in the lagoon but the fish had it so muddy that counting was impossible. Stream flow good.
257-303	10-29	Hander	f f		0	1635	0	0	-	-	1332 hrs. Mid high tide, stream flow good, surveyed 6 miles from mouth. 100 coho in lagoon and 1,500 coho in upper end of lake, 35 coho in stream above lake.
Upper Station											
257-304	6- 6	Brennan	g f f		500	0	0	0	-	-	1630 hrs. No show offshore - poor look. Only a few in lower lagoon.
257-304	6-21	Brennan	f f		69	0	0	0	-	-	1200 hrs. Heavy jumper activity from Silver Salmon to Stormy Point. None off mouth. Some in lagoon plus 1800 dollies.
257-304	6-23	Brennan	f p		0	0	0	0	-	-	1930 hrs. Nothing showing offshore - Poor conditions.
257-304	6-25	Brennan	g g f		0	0	0	0	-	-	1330 hrs. Nothing showing off mouth, nothing in lagoon. No stream survey.
257-304	6-27	Prokopowich	g		500	0	0	0	-	-	Reds in lagoon below weir.
257-304	8-10	Brennan	g g		0	0	0	0	-	-	1215 hours. Quick look as passing by. No show.
257-304	8-13	Prokopowich	g		8000	0	0	0	65000R	-	Windy. Stream fish in lagoon. Very few jumpers north side. Good show south side. Scattered schools to Stockholm Point.
257-304	8-14	Brennan	f f		6000	0	0	0	1500R	36000R	1345 hours. Quick look. Lots of fish sitting off lagoon. Big schools.
257-304	9-12	Weir Count	e f		253426	6487	948	2	1020R 980Co	-	Final weir counts. Mouth counts are estimates by the crew of fish remaining in the river and lagoon. Plus weir count of 28 king salmon.
Horse Marine											
257-402	6-23	Brennan	g f		0	0	0	0	225R	-	1832 hrs. A few fish visible outside, 2 small bunches just inside the mouth. No stream survey. Nothing by the weir.
257-402	7-10	Hander	g g		550	0	0	0	-	-	1850 hours, mid tide. All fish seen in lake. Good stream flow.
257-402	7-25	Hander	g		300	0	0	0	-	-	1210 hours, low tide. Reds were grouped at stream mouth on N.W. shore of lake. Stream flow low.
257-402	8-13	Prokopowich	g		1800	0	0	0	600R	-	Reds in lake - mouth fish are behind weir in lagoon.
257-402	9-12	Weir Count	e f		2096	229	262	129	15R 5Co 125P 50Ch	-	Final weir counts. Mouth counts are estimates by the weir crew of fish remaining in the lagoon.
Dog Salmon											
257-403	6- 6	Brennan	g g g		0	0	0	0	-	-	1700 hours. No show on flats or offshore. Looked at bay from Chip Cove north.
257-403	6-12	Brennan			0	0	0	0	41000R	-	1300 hrs. Fish all outside; most on east side between Talifson's Bight and offshore east fork.

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Appendix G.1. (page 15 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth	Fish Bay	Observer Remarks
257-403	6-21	Brennan	f p	0	0	0	0	78000R	5000R	1100 hrs. Most fish on east side or by first net site on west. Lots of jumpers outside. *No estimate included (10,000 (?) - 50,000(?)). No fish seen to Little Dog Salmon.
257-403	6-23	Brennan	g p	0	0	0	0	45000R	70000R	1845 and 2000 hrs. Visibility in bay poor. Turbid and choppy. Lots of fish visible on flats and creek mouths: 11-15,000 to east, 5,000 at east flats, 28-30,000 in east mouth; 12-15,000 in west mouth; no count to west - too windy and dark. No fish seen to west to Akalura or from Akalura to Stormy Point. See map of fish locations.
257-403	6-25	Brennan	g g f	68000	0	0	0	48000R	-	1300 hrs. 35,000 in East Fork below weir, 33,000 in west fork below weir. "Mouth" fish actually spread out on flats plus estimate of offshore fish.
257-403	8-10	Brennan	g g	0	0	0	0	-	-	1205 hours. Look at flats. Nothing showing - windy.
257-403	8-13	Prokopowich	e	0	0	0	0	-	10000R 7500P	Pinks on flats. Reds in bay south side.
257-403	8-14	Brennan	f f	0	0	0	0	-	-	1330 hours. Quick look outside. No pinks showing. No stream survey.
257-403	9- 5	Weir Count	e f	254240	3184	2718	1520	300R 3300Co 2000P 5000Ch	-	Final weir counts. Mouth counts are estimates by weir crew of fish remaining behind the weir and on the flats. Plus weir count of 270 kings.
257-403	10- 1	Hander	g	0	4070	0	0	-	-	1347 hrs., high tide. Started seeing coho approximately 4 miles up from mouth. Coho were 4 miles up east fork of the river. Stream flow good.
257-403	10-23	Hander	g	0	705	0	0	-	-	1640 hrs. High tide, surveyed from falls to a point about 3 miles up from mouth and east fork, 7.5 miles total. Stream flow good. Most coho found in east fork.
Deadman Bay										
257-50	7-18	Brennan	e e	0	0	4000	5000	-	7000Ch	1800 hrs. Bay chums off point by Ivor Cove. Likely a lot more than 7,000. Nothing in Alpine Cove, nothing off flats. Some fish in first few bends of river - mixed chums and pinks. Surveyed only lower 1 mile of river.
Deadman River										
257-502	7-10	Hander	g g	0	0	0	0	-	-	1900 hours, high tide. No fish observed in stream or off mouth. Stream flow good.
257-502	7-16	Hander	g g	0	0	2600	0	-	-	1217 hours, high tide, surveyed entire system, all fish in lower mile of river, good stream flow.
257-502	7-25	Hander	g	0	0	3200	800	-	-	1240 hours, low tide, all fish in lower 3 miles of river. Surveyed all of South fork and approximately 5 miles up mainstem. Very low stream flow.
257-502	7-29	Brennan	p p	0	0	0	0	-	-	1250 hours. Poor look. No show. No stream survey.
257-502	8- 5	Prokopowich	g	0	0	6500	1500	-	-	Looks poor. No show in bay.

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Appendix G.1. (page 16 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum	Build Up Fish Mouth Bay	Observer Remarks
257-502	8- 5	Brennan	g g g	0 0 7115 1110	85P -	1345 hrs. Really quiet. Didn't survey all of river; only lower two miles or so. Most fish below forks. Only a few in sloughs and side channels. Nothing out front.
257-502	8- 8	Hander	g	0 0 7850 1500	- -	1250 hrs, mid low tide. Fish only 2-3 miles up river. Low water flow.
257-502	8-10	Brennan	g g	0 0 0 0	- -	1200 hours. Quick look out front. Nothing showing. No stream survey.
257-502	8-13	Prokopowich	e	0 0 8500 0	500P -	No show in bay. 3,000 p. west fork, 3500 p. east fork, 2,000 p middle fork. Looks poor.
257-502	8-14	Hander	g	0 0 26050 900	- -	0935 hrs. Mid high tide, surveyed 4 miles up. Fish 3 miles up the east fork and (?) miles up west fork. Good stream flow.
257-502	9-25	Hander	g	0 2650 0 0	- -	1150 hrs, low tide, surveyed whole system. Observed 300 Dolly Varden. Most all coho were in the east fork of river. Stream flow good.
257-502	10-23	Hander	g g	0 193 0 0	- -	1315 hrs. mid high incoming tide, surveyed 9 miles from mouth. Surveyed both forks and only saw coho up the east fork.
Alpine Cove Creek						
257-503	7-29	Brennan	p p	0 0 0 0	- -	1245 hours. Nothin showing. Dark and windy. No stream survey.
257-503	8- 5	Brennan	g g g	0 0 20 40	- -	1335 hrs. Almost no show.
257-503	8- 5	Prokopowich	g	0 0 0 0	- -	Nothing seen. One hungry bear.
257-503	8-14	Hander	e	0 0 500 0	- -	0930 hrs. Mid high tide. Good stream flow.
Portage/Sulua Bay						
257-60	7-18	Brennan	e e	0 0 0 0	- -	1630 hours. No show in bay or mouth. No stream surveys
257-60	7-29	Brennan	p p	0 0 0 0	- 500Ch	1240 hours. No show in lagoon. Only a few jumpers out by spit. Poor look. Dark and windy. No stream survey.
N.E. Portage						
257-601	8- 5	Brennan	f f f	0 0 0 0	- -	1200 hrs. Pretty blank.
257-601	10- 2	Hander	g	0 215 0 0	- -	1207 hrs., high tide. Stream flow moderate to low. Most coho in lower .25 miles of river. Surveyed 3 miles up from mouth.
Sulua Pink Creek						
257-602	8- 5	Brennan	g f f	0 0 45 0	160P -	1150 hrs.
Sulua Chum Creek						
257-603	8- 5	Brennan	g f f	0 0 190 200	170Ch -	1145 hours.
257-603	8- 5	Prokopowich	g g g	0 0 0 1800	- -	-

-Continued-

Appendix G.1. (page 17 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth	Fish Bay	Observer Remarks
Toms Creek										
257-604	8- 5	Brennan	f f f	0	0	50	0	-	-	1155 hrs. No show out front. Deadsville!
Bumpy River										
257-701	7-18	Brennan	e e e	0	0	0	0	2000P	500P	1705 hrs. No fish visible offshore and only a few north of mouth. Stream fish just inside river on first bend. Surveyed 2 miles of stream.
257-701	7-29	Brennan	f p p	0	0	1200	0	-	-	1220 hours. Some fish in upper creek, pretty bare really. Poor visibility outside but very poor show. Doesn't look like much around. Nothing along coast to north.
257-701	8- 5	Brennan	g g g	0	0	3300	0	500P	700P	1310 hrs. Good look but not much showing. Most fish high up in river. In canyon almost no fish. A few at mouth. Bay fish to the north along beach.
257-701	8- 5	Prokopowich	e	0	0	12000	0	2000P	-	Looks poor.
257-701	8- 8	Hander	g	0	0	9100	0	-	-	1225 hrs, low tide. Conservative estimate...ENE wind at 25 knots. Had to survey from 400 feet above ground level. Moderate water flow.
257-701	8-10	Brennan	g g g	0	0	32500	0	8000P	3500P	1140 hours. Flew entire creek. About 11K in upper portion of creek.
257-701	8-13	Prokopowich	e	0	0	50000	0	12500P	-	Still looks weak, good distribution on spawners.
257-701	8-20	Brennan	g g g	0	0	31450	0	-	-	1200 hours. Turbulent so flew high (500+), but good look. Upper reaches barre. Only a few schools and scattered individuals in canyon. Looks pretty thin.
257-701	10- 2	Hander	g	0	2130	0	0	-	-	1217 hrs., high tide. Stream flow good. Coho scattered approximately .8 miles up river (to forks). Started survey at forks.
257-701	10-29	Hander	g g	0	250	0	0	-	-	1251 hrs. Mid high tide. Stream flow good, surveyed 10 miles from mouth. Coho scattered through all 10 miles. Shaded areas in canyon section were impossible to survey. Most coho were in upper 5 miles of river.
Kiliuda Bay										
258-20	7-18	Brennan	e e e	0	0	0	0	-	-	1510 hrs. Bay survey of N. Arm, S. Arm and Dog Bay. Nothing showing except a few individuals off Pivot Point.
258-20	8-13	Prokopowich		0	0	0	0	-	2500Ch	Fish by Pivot Point.
Shearwater Bay Creek										
258-202	8-23	Brennan	e e e	0	0	1500	400	-	-	1140 hours. Nothing outside on flats or in bay.
Port Otter Creek										
258-203	8-23	Brennan	e e e	0	0	0	0	500P	200P	1145 hours. Bay fish on beach to south. No stream survey.

-Continued-

Appendix G.1. (page 18 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay	Observer Remarks		
Dog Bay Creek											
258-204	8-13	Prokopowich	e		0	0	0	350	800Ch	-	Water murky offshore. Good water flow.
258-204	8-23	Brennan	e e e		0	0	500	3700	500Ch	-	1150 hrs. East fork 2500 chums, middle forks 1200. Pinks in both.
Coxcomb Pt. Creek											
258-205	8-13	Prokopowich	e		0	0	0	1300	1500Ch	-	Water murky offshore.
258-205	8-23	Brennan	e e e		0	0	50	400	-	-	1155 hours.
N. Kiliuda Creek											
258-206	7-16	Hander	g g		0	0	0	0	-	-	1145 hours, high tide, no fish in stream or off mouth, surveyed lower two miles of river, stream flow good.
258-206	8- 5	Brennan			0	0	0	25	-	-	1540 hrs.
258-206	8-13	Prokopowich	e		0	0	0	0	-	-	Nothing seen.
258-206	8-23	Brennan	f e e		0	0	930	0	-	-	1225 hours.
W. Kiliuda Creek											
258-207	7-16	Hander	e g		0	0	100	0	-	-	1150 hours, high tide, no fish off mouth, surveyed lower two miles of stream, stream flow good.
258-207	8- 5	Brennan	g g g		0	0	140	250	-	-	1535 hrs. Zipsville! Really dead.
258-207	8- 5	Brennan	f f f		0	0	0	0	100P	-	1245 hrs.
258-207	8-13	Prokopowich	e		0	0	2100	650	-	-	Nothing seen on flats. 1,100 pink and 300 chum were in sample fork.
258-207	8-14	Hander	g		0	0	600	4400	750Ch	-	0803 hrs. High tide. Surveyed approximately 2-3 miles upstream. Fish were in lower two miles. Good stream flow.
258-207	8-23	Brennan	e e e		0	0	1300	220	-	-	1215 hours. Nothing showing bay. Great look too.
258-207	10- 2	Hander	e g		0	420	0	0	-	-	1012 hrs., high tide, stream flow moderate to low. Coho in lower 2 miles of river. Surveyed lower 5 miles of river. Dolly Varden scattered through lower 4 miles of river.
258-207	10-29	Hander	g g		0	310	0	0	-	-	1140 hrs., mid high tide. Stream flow low, 15 mile stretch of river was dry. This was approximately .5 miles up from mouth. 140 coho below dry stretch and 170 above. Surveyed 5 miles (dry stretch not included).
Dukaluk Creek											
258-208	8- 5	Brennan	g g g		0	0	0	75	105P	-	1520 hrs.
258-208	8-23	Brennan	e e e		0	0	50	180	1800P 500Ch	-	1205 hours. Chums in slough to east. Middle fork and west sloughs no fish. Main fork dry.
Kiliuda Spit Creek											
258-210	8-13	Prokopowich	e		0	0	0	800	1200Ch	-	Fish of mouth were along spit in scattered schools.

-Continued-

Appendix G.1. (page 19 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay	Observer Remarks
Marker Grove Creek									
258-211	8- 5	Brennan	g g g	0	0	0	0	80P -	1515 hrs.
Pivot Point									
258-212	8- 5	Brennan	g g g	0	0	0	5	170P -	1510 hrs.
258-212	8-23	Brennan	e e e	0	0	700	400	200Ch -	1130 hours.
Bear Camp Creek									
258-213	8- 5	Brennan	g g g	0	0	0	0	700P -	1530 hrs. Doesn't look like much in creek but a few in front.
Nut Island Creek									
258-305	7-16	Hander	g g	0	0	0	0	- -	1200 hours, high tide, no fish off mouth or in stream, stream flow good.
Bush Point Creek									
258-306	7-16	Hander	g g	0	0	0	0	- -	1207 hours, high tide, no fish off mouth or in stream, stream flow good.
Ocean Beach									
258-401	6-12	Brennan	e g f	0	0	0	0	- -	1045 hrs. Pretty muddy along beach - saw nothing moving.
258-401	7-18	Brennan	e e e	5370	0	0	0	50R 510R	1530 hrs. Bay Cove...Reds right on beach close to stream mouth. 50 just inside mouth. Most in upper half of second lake and in last lake. Heavy schools on shore and along shallows. Counts very conservative.
258-401	9-28	Brennan	f g f	2000	581	0	0	- -	1515 hrs. Lake dark and muddy. Reds on shore easy to spot. A couple schools coho seen. Nothing below. Plus 200 red carcasses.
Rolling Bay									
258-511	8-20	Brennan	g g g	0	0	14000	12800	- -	1215 hours. Nice bunch of fish in lagoon. Only 4,800 up mid-tributary, but school of 8,500 right at mouth of tributary. In lower 1 mile 15,500 mixed fish.
Natalia Bay									
258-512	8-20	Brennan	g g g	0	0	20	5	- -	1225 hours. Really poor show.
Newman Bay									
258-513	8-20	Brennan	g g g	0	0	10	10	- -	1240 hours. Deadsville!

-Continued-

Appendix G.1. (page 20 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum	Build Up Fish Mouth Bay	Observer Remarks
Natalia Cabin Creek						
258-514	8-20	Brennan	g f	0 0 0 0	250P -	1230 hours. Quick fly-by. Bay looks dead but one bunch of fish in mouth. No stream survey.
Midway Creek						
258-521	7-16	Hander	g g	0 0 400 0	- -	1211 hours, high tide, no fish off mouth, surveyed lower 3 miles of river, stream flow good.
258-521	8-14	Hander	e	0 0 1125 7350	- -	0820 hrs. High tide. Surveyed 5 miles upstream. Fish scattered in lower 4 miles. Good stream flow.
258-521	8-23	Brennan	e e e	0 0 18850 4200	9000P -	1115 hours. Most fish in big groups still down below. Those above nicely spread with a few small dabs way up. No silvers yet.
258-521	9-28	Brennan	g f f	0 400 0 0	- -	1540 hrs. Looks poor. Sloughs dark but visible. No fish! Nothing in creek below Matfay's place (new cabin). 400
258-521	10- 2	Hander	e	0 4045 0 0	- -	1030 hrs., high tide. Stream flow good. Most coho in the lower 3 miles of the river. Dolly Varden scattered throughout lower 7 miles of river.
258-521	10-29	Hander	g g	0 2830 0 0	- -	1152 hrs. Mid high tide, stream flow moderate. Surveyed 9 miles from mouth. Coho scattered through the whole area surveyed. 4,000 dolly varden.
Barling Creek						
258-522	7-16	Hander	g g	0 0 1425 0	- -	1223 hours, high tide, surveyed lower 2 miles of river. 225 pinks above weir and 1200 pinks below weir, stream flow good.
258-522	7-18	Brennan	e e e	0 0 0 4	- 2000P 3500Ch	1545 hrs. Possible schools of chums out by Old Harbor. One school in Barling on south side. Small dab of pinks on north side. Zero fish in lower river, behind weir. Dollies upstream??
258-522	8- 5	Brennan	g g g	2 0 1015 530	680P 500Ch 2800P 1500Ch	1500 hrs. Pretty quiet really. Balls of bright chums way out. Stream breakdown: Above weir...pinks-395; chums-140. Below weir...pink-620; chums-390.
258-522	8-13	Prokopowich	e	0 0 23500 300	- 22000P	Looks good. Only 2,500 pinks and 300 chum were above weir.
258-522	8-14	Hander	g	0 0 25500 6350	- -	0843 hrs. High tide. Surveyed 5-6 miles upstream, fish in lower 3-4 miles. 26,000 pinks and 6,000 chums below weir. Good stream flow.
258-522	8-14	Brennan	f g g	0 0 4300 1600	5000P 1200Ch 29200P 7500Ch	1225 hours. Lots of dollies. Of stream fish 600 chums and 3,500 pinks above weir. Bay pinks in channel on flats. Chums outside.
258-522	8-20	Brennan	f g g	0 0 3400 500	15000P 6000Ch 10000P 9000Ch	1250 hours. Pretty turbulent so not a good look at creek. Most fish below weir and outside. Still a good bunch out by Half Moon beach on north side.

-Continued-

Appendix G.1. (page 21 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish Mouth Bay	Observer Remarks
				Reds	Coho	Pink	Chum		
258-522	8-23	Brennan	e e e	0	0	28850	5500	12000P 1000Ch	5500Ch 1050 hours. Main channel dry part way. North fork blocked by beaver dam; only 50 chums. South fork only 200 pinks. Most fish below weir (26,000 pinks and 5,000 chums. Only 2,850 pinks and 500 chums above weir.)
258-522	10- 2	Hander	g	0	1212	0	0	-	- 1045 hrs., high tide. Stream flow moderate. Coho were in lower 3 miles of river. Surveyed 6 miles up from mouth.
258-522	10-29	Hander	g f	0	350	0	0	-	- 1213 hrs. Mid high tide. Stream flow low. Surveyed 7 miles up from mouth. 1 mile dry stretch approximately 2 miles up from mouth. 250 coho below dry area, 100 coho and 150 dolly varden above dry area.
<i>Old Harbor Cr.</i>									
258-523	8-23	Brennan	e e e	0	0	50	30	500P	- 1105 hours.
<i>West Three Saints</i>									
258-531	7-16	Hander	g g	0	0	0	0	-	- 1238 hours, high tide, no fish in stream or off mouth, stream flow good.
258-531	10- 2	Hander	g	0	0	0	0	-	- 1100 hrs., high tide. Stream flow moderate. No fish.
<i>SW Three Saints</i>									
258-532	7-16	Hander	g g	0	0	0	0	-	- 1235 hrs, high tide. No fish in stream or off mouth. Stream flow good.
258-532	10- 2	Hander	g	0	0	0	0	-	- 1104 hrs., high tide. Stream flow moderate. No fish.
<i>NE Three Saints</i>									
258-533	7-16	Hander	g g	0	0	0	0	-	- 1234 hours, high tide, no fish off mouth or in stream, stream flow good.
<i>Kaiugnak Bay</i>									
??									
258-54	7-29	Brennan	f f	0	0	0	0	-	- 1130 hours. Pretty dark w/enough sun to add glare! No fish showing along shoreline or in lagoon. No stream survey.
<i>Kaiugnak Point</i>									
258-541	7-16	Hander	g g	0	0	0	0	-	- 1305 hours, mid tide, no fish in stream or off mouth, good stream flow.
258-541	8- 5	Brennan	g f f	0	0	140	0	4800P	- 1135 hrs. Several balls of fish on outside beach. Only a few up inside mouth of creek.
258-541	8-14	Brennan	g e e	0	0	0	0	8700P	- 1240 hours. 20 plus balls of fish along beach. This is a conservative, probably low estimate.

-Continued-

Appendix G.1. (page 22 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum	Build Up Fish Mouth Bay	Observer Remarks
258-541	8-14	Hander	g	0 0 0 1500	3000Ch -	0900 hrs. High tide. Had to survey from 100' high. N.W. 25 knot wind. Good water flow.
258-541	10- 2	Hander	e	0 650 75 0	- -	1157 hrs., high tide. Stream flow moderate. Stream was dry approximately 1.25 miles from mouth.
258-541	10-29	Hander	g g	0 85 0 0	- -	1237 hrs. Mid high tide, Stream flow low. Surveyed 2 miles. One mile dry stretch above area surveyed. Coho scattered through lower 1.5 miles.
Kaiugnak Lagoon						
258-542	7-16	Hander	g g	0 0 0 0	- -	1308 hrs., mid tide. No fish in stream or off mouth. Stream flow good.
258-542	8- 5	Brennan	g f f	0 0 430 0	16600P 440P	1120 hrs. Most of fish inside in mid-lagoon (13.8K) laying in the kelp. The rest (2.8K) further inside in last lagoon. Few right at mouth or in creek. Fish bright, hard to estimate.
258-542	8-14	Brennan	g g g	0 0 8200 0	12000P 46000P	1245 hours. Lots of fish stacked up in inner and outer "Lagoon" (mouth and bay fish). Sitting in kelp...difficult to get good count.
258-542	10- 2	Hander	g	0 200 0 0	20Co -	1200 hrs., high tide. Stream flow moderate. Stream impassable just above forks.
Bruin Creek						
258-544	8-14	Hander	g	0 0 0 3000	- 2000P 2000Ch	0905 hours. High tide. Surveyed from 1,000' ASL, 25 knot winds, could not I.D. fish in bay. Good stream flow.
Kiavak Portage						
258-551	7-16	Hander	g p	0 0 0 0	- -	1257 hours, mid tide, no fish in stream or off mouth. Surveyed lower mile of creek, good stream flow.
258-551	7-18	Brennan	e e e	0 0 0 0	- -	1620 hrs. Fish not showing yet. No stream survey.
258-551	7-29	Brennan	f f f	0 0 0 0	- 2000Ch	1145 hours. Only a few jumpers seen outside lagoon. Nothing inside. No stream survey.
258-551	8- 5	Brennan	f f f	0 0 1200 0	24000P -	1205 hrs. Large masses of fish laying in kelp. Hard to estimate,. Only a few in creek so far.
Kiavak Lagoon						
258-554	7-16	Hander	g g	0 0 0 0	- -	1252 hours, high tide, no fish in stream or off mouth.
Kiavak Spit						
258-555	10- 2	Hander	e	0 30 0 0	50Co -	1204 hrs., high tide. Stream flow moderate.
Jap Bay						
258-601	7-29	Brennan	f f	0 0 0 0	- -	1150 hours. Nothing seen. Dark and choppy.

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Appendix G.1. (page 23 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay	Observer Remarks
Kaguyak Bay Creek									
258-602	8- 5	Brennan	g f f	0	0	40	70	900P 5600P	1230 hrs. Only a few fish upstream but fair show in lagoon below. Large bunch right at mouth and 3 or 4 schools (1,500 ea.) along beach.
Kaguyak Fox Creek									
258-603	7-29	Brennan		0	0	0	0	- -	1155 hours. Just a few in lagoon. Nothing sighted outside. Dark and breezy. No stream survey.
258-603	8- 5	Brennan	g f f	0	0	20	0	200P -	1235 hrs.
258-603	8-14	Brennan	g g g	0	0	1800	0	900P 2800P	1255 hours. Pretty windy, so quick look. Fish in bays along outside beach and stacked in mouth of creek. Surveyed lower 1/2 mile of creek only.
Seven River									
258-701	7-18	Brennan	e e e	0	0	45	0	- -	1650 hrs. No fish visible at mouth on flats or in kelp offshore, but wind made positioning difficult. Only surveyed 1 mile of stream.
258-701	7-29	Brennan	f f f	0	0	2200	0	- -	1215 hours. Nothing showing outside. Dark but clear. A few fish in lagoon and a few in creek - but zip outside.
258-701	8- 5	Brennan	f f f	0	0	15820	0	- -	1250 hrs. No fish outside. Zero fish in south fork and only 320 up north fork. The majority from forks to mouth.
258-701	8-10	Brennan	g g g	0	0	27200	0	12000P 8700P	1120 hours. Very few fish in upper stream. Most still below forks. A lot of bears working stream (12+). No many fish stacked up outside. Good look, some glare.
258-701	8-13	Prokopowich	e	0	0	66000	0	- -	Too windy to survey off mouth and shoreline - SW 35. 26,000 pinks to forks, 30,000 pinks W. Fork, 10,000 Pinks Long Fork.
258-701	8-14	Brennan	f f f	0	0	33000	0	- -	1300 hours. Poor count. Wind N.E. 30+. Most fish below forks.
258-701	8-20	Brennan	g g g	0	0	79550	0	- -	1140 hours. Wind made survey sloppy, but still a good look. 49,999 pinks below forks, 11,850 in left (south) fork, and 18,700 in right (north) fork. Good distribution though not much in upper river.
Tundra Lakes Creek									
258-703	8- 5	Brennan	f f f	0	0	0	0	600P -	1245 hrs.
Melavedof Creek									
258-705	7-18	Brennan	e e e	0	0	0	0	- -	1640 hrs. No stream survey.
258-705	8- 5	Brennan	f f f	0	0	0	0	300P -	1240 hrs.
258-705	8-10	Brennan	f f f	0	0	0	0	- -	1115 hours. No show.

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Appendix G.1. (page 24 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay		Observer Remarks
Kaguyak Village Crk.										
258-706	7-18	Brennan	e e e	0	0	0	0	-	-	1640 hrs. Nothing showing from Old Kaguyak around Boot Point, south to 7-Rivers. Swirling wind made positioning plane difficult. No stream survey.
258-706	7-29	Brennan	p p	0	0	0	0	-	-	1200 hours. Nothing. Poor look. S.E. chop and S.E. swell, nothing down coast to Seven Rivers.
258-706	8-10	Brennan	f f f	0	0	0	0	-	275P	1110 hours. 8 to 10 schools visible...traveling fish.
Russian Harbor										
258-901	7-29	Brennan	p p	0	0	0	0	-	-	1225 hours. No show.
Monashka Creek										
259-101	8- 9	Prokopowich	f e e	0	0	0	0	3500P	-	Didn't survey creek.
259-101	8-13	Brennan	e e e	0	0	1700	0	400P	3800P	1055 hrs.
259-101	8-14	Brennan	g g f	0	0	2700	0	3800P	-	1520 hours.
259-101	9-13	Brennan	f f f	0	0	0	0	-	-	1205 hrs. Quick look outside...no show. Too foggy to survey stream.
259-101	10-23	Avery	g g	0	52	0	0	-	-	Foot survey (One carcass not included in total).
Pillar Creek										
259-102	8- 9	Prokopowich	f e e	0	0	0	0	-	-	Nothing seen off mouth. Didn't survey creek.
259-102	8-13	Brennan	e e e	0	0	3400	0	400P	200Co 4600P	1050 hrs. Most likely low count on pinks in stream.
259-102	8-14	Brennan	g g g	0	0	2700	0	-	9000P	1530 hours. Good balls of fish offshore. Maybe some silvers.
259-102	8-20	Brennan	g g g	0	0	4580	0	-	50Co 200P	1510 hours. Nice groups of fish in lower river and brushy sections. Only a few balls outside.
259-102	9-13	Brennan	f f f	0	0	1300	0	-	100Co 100P	1155 hrs. Quick look. Rain and fog hampering clear look at things. Add 500 carcasses to pink count.
259-102	10-23	Avery	g g	0	45	0	0	-	-	Foot survey.
Momens Bay										
259-21	8-18	Brennan	e	0	0	0	0	-	400P	1310 hours. Fish up inside by Coast Guard base.
Buskin River										
259-211	8-13	Prokopowich	e g g	0	0	30000	0	-	-	Survey of entire river. Very little show off mouth.
259-211	8-14	Brennan	g g	0	0	0	0	-	-	1145 hours. Quick look off the mouth. No fish showing. No stream survey.
259-211	8-15	Brennan	e e e	0	400	30400	0	125Co 200P	250Co	1015 hours. Weir back in today so did count to estimate escapement to date. Nothing offshore and little in lagoon and lower river. Below weir 8,100; mostly right below. Above weir 22,300, well distributed. No survey in lake.
259-211	9- 6	Schwarz	f f f	0	550	8500	0	-	-	Helicopter survey below weir. Glare was a problem. Lots of carcasses (not included in total).

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Appendix G.1. (page 25 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish Mouth Bay		Observer Remarks
				Reds	Coho	Pink	Chum			
259-211	9- 7	Smith	e e	0	679	11579	0	-	-	Foot survey below weir. 1,600 pink carcasses, 50 coho carcasses (not included in total).
259-211	10-20	Avery	g f	0	726	0	0	-	-	Foot/raft survey. 8 coho carcasses (not included in total).
259-211	10-31	Avery	g f	0	1540	0	0	-	-	Foot/raft survey. 64 coho carcasses (not included in total).
Sargent's Creek										
259-221	8-18	Brennan	e e e	0	0	4900	0	280P	800P	1330 hours. A few fish off shore. Not much in creek.
259-221	8-20	Brennan	p f f	0	0	3800	0	500P	-	1635 hours. Poor look.
259-221	10-28	Avery	g f	0	60	0	0	-	-	Foot survey.
Russian River										
259-222	8-18	Brennan	e e e	0	0	4180	200	-	-	1325 hours. Very light show, most on creek bank.
259-222	8-20	Brennan	p f f	0	0	3900	0	1000P	-	1625 hours. Much poorer look than 2 days ago.
259-222	10-21	Avery	g	0	16	0	0	-	-	Foot survey.
Solonie Creek										
259-223	8-18	Brennan	e e e	0	0	4140	0	350P	-	1315 hours. Not a lot of fish. Only a few balls in lower river.
259-223	10-21	Avery	g g	0	141	0	0	-	-	Foot survey. (One coho carcass not included in total)
259-223	11- 4	Avery	g	0	186	0	0	-	-	Foot survey. (1 coho carcass not included.)
Middle Bay										
259-23	8-18	Brennan		0	0	0	0	-	200Co 1700P	1245 hours. Most fish along beach out front with 150 to north outside.
American River										
259-231	8-13	Prokopowich	e	0	0	20000	8000	8000P	35000P	Show in bay should be better. 4,000 Dolly Varden in stream.
259-231	8-14	Brennan	f g g	0	0	4400	0	1700P 300Ch	-	1150 hours. Looked at bay and up main stem of river. Did not check any sloughs. "Mouth" fish sitting on beach's front.
259-231	8-18	Brennan		0	0	14750	1750	3500P	-	1250 hours. Fish mainly in 3/4 mile stretch above bridge. Nothing in upper reaches.
259-231	8-20	Brennan	f f f	0	0	17700	1800	2000P 600Ch	-	1340 hours. Maybe a few more fish than Saturday. Poorer look - lots of glare. Fish more spread out. Still not much in upper reaches or sloughs.
259-231	8-21	Prokopowich	g	0	0	22000	1500	3000P	-	Not much improvement. Chums look weak.
259-231	9- 6	Schwarz	e p	0	20	7500	120	350P	-	Helicopter.
259-231	10-19	Avery	f f	0	419	0	0	-	-	Foot survey.
259-231	10-27	Avery	f f	0	287	0	0	-	-	Foot survey. 3 coho carcasses not included in total.
259-231	11- 6	Avery	f p	0	314	0	0	-	-	Foot survey. 2 coho carcasses not included in total.

-Continued-

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Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay		Observer Remarks
Salt Creek										
259-233	8-18	Brennan				0	0	0	0	- - 1255 hours.
Sid Olds										
259-242	7-18	Brennan	e e e			0	0	0	0	- - 1415 hrs. No fish offshore or along southeast shore - only dollies in creek(800). Red tide in bay! Surveyed only 2 miles of creek - more fish in holes - missed 'em.
259-242	8-13	Prokopowich	e			0	0	21000	0	9000P 2500P Chums look weak. Show in bay should have been better. 4,000 Dolly Varden in stream.
259-242	8-18	Brennan	e e e			0	0	15525	1400	500Co 6800P 250Co 1230 hours. Only 525 fish above curve. Most fish within 3/4 mile above breidge. Pretty light below.
259-242	8-18	Holmes	e p			0	0	200	25	1Co 50P - Counts from bridge to salt water (may have been more pinks). Would expect more coho by this date.
259-242	8-20	Brennan	f g g			0	0	19450	4000	1500P - 1530 hours. Lots of glare made stream count only fair.
259-242	9- 6	Schwarz	e p			0	15	5300	90	- - Helicopter. 1,250 dolly varden.
259-242	10-17	Avery	g f			0	1706	0	0	- - Foot/raft survey.
259-242	11- 3	Avery	f f			0	1010	0	0	- - Foot/raft survey. 4 coho carcasses not included in total.
Kalsin Creek										
259-243	8-18	Brennan	e e e			0	0	2500	0	750P - 1225 hours.
259-243	10-15	Avery	g f			0	64	0	0	- - Foot survey.
Frank's Creek										
259-244	8-18	Brennan	e e e			0	0	65	0	- 75P 1225 hours. Poor show but does this creek ever get much?
Myrtle Creek										
259-245	8-13	Prokopowich	e			0	0	500	0	3000P - -
259-245	8-18	Brennan	e e g			0	0	3400	0	4300P 500P 1220 hours. Bay fish to west on beach. Mouth fish on flats. Not much in stream.
Mayflower Beach										
259-246	8-18	Brennan	e			0	0	0	0	- - 1240 hours. Zip. No stream survey.

259-250	8-18	Brennan	e e g			0	0	0	0	500P - 1205 hours. Quick look offshore.
Roslyn Creek										
259-251	8-13	Prokopowich	e			0	0	2000	0	- - -
259-251	8-18	Brennan	e e g			0	0	39450	0	- - 1210 hours. Good water flow. Hole in Beaver Dam so fish can get upriver. Most fish still balled up below road.

-Continued-

Appendix G.1. (page 27 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up	Fish	Observer Remarks	
				Reds	Coho	Pink	Chum	Mouth	Bay		
259-251	9- 6	Schwarz	e f	0	40	7600	100	-	-	Helicopter. Only flew inseason index area. Lots of carcasses.	
259-251	10-16	Avery	f f	0	647	0	0	-	-	Foot survey. 1 coho carcass not included in total.	
259-251	10-30	Avery	g g	0	676	0	0	-	-	Foot survey.	
Twin Creek											
259-252	8-13	Prokopowich	e	0	0	800	0	-	-	-	
259-252	8-18	Brennan	e e g	0	0	14850	0	900P	-	1200 hours. Good bunch of fish in lower river and moving up past mid reach.	
Capelin Creek											
259-253	8-13	Prokopowich	e	0	0	1200	0	-	-	-	
259-253	8-18	Brennan	e e g	0	0	2250	0	-	-	1150 hours. Fish in lower stretches.	
Chiniak Creek											
259-254	8-13	Prokopowich	e	0	0	1000	0	500P	-	No build up seen offshore.	
259-254	8-18	Brennan	e e g	0	0	22550	0	4500P	500P	1135 hours. Good show but creek could hold lot more. Good water flow.	
259-254	11- 5	Avery	g	0	45	0	0	-	-	Foot survey. 3 coho carcasses not included in total.	
Crescent Creek											
259-362	9-13	Brennan	f p p	0	0	0	0	1200Co	200Co	1210 hrs. Lots of glare and rain. Poor look. Fish stacked in stream mouth and a few outside. Jumpers by causeway but unable to estimate numbers.	
Barabara Creek											
259-363	6-15	Brennan	f g f	0	0	0	0	-	100R	1010 hrs. Good look at lake. Nothing showing in shallows but some fish deep.	
259-363	6-27	Prokopowich	g	1800	0	0	0	-	-	Reds in lake.	
259-363	7-12	Brennan	f f f	25	0	0	0	40R	-	0955 hours. Fish not showing on lake shoals. Weather dark, some glare. Fish out deep. No estimate of fish in lake.	
Kizhuyak River											
259-365	7-16	Brennan	e e f	0	0	0	0	-	-	1930 hours. No fish showing in head of bay or near flats. No stream survey.	
259-365	7-19	Blackett	g g f	0	0	1000	130	-	20P	All pinks below Watchout Creek and most chums above. No pinks in Spring or Watchout Creeks.	
259-365	8- 5	Prokopowich	g	0	0	5000	200	-	-	No show in bay. 500 pinks were in beaver pond.	
259-365	8- 9	Prokopowich	g	0	0	7500	0	-	-	Of which 500 Pinks in beaver pond.	
259-365	8- 9	Brennan	f f f	0	0	0	0	50P	20P	1800 hrs. Really blank. A few in lower mouth and channels. Zip outside, zip in sloughs. No jumpers.	

-Continued-

Appendix G.1. (page 28 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum	Build Up Mouth	Fish Bay	Observer Remarks
259-365	8-17	Brennan	f f f	0 0 7000 2300	-	1300P	1310 hours. In main stem 6,400 pinks. Most below forks still. 400 pinks up east fork. Only 200 pinks in slough to east. Chums scattered about. Nothing on flats.
259-365	8-21	Blackett	g g g	0 0 5200 525	-	25P	-
259-365	8-23	Brennan	e e e	0 0 3700 0	-	-	1300 hours.
259-365	9- 8	Blackett	g g g	0 0 7900 20	-	-	-
259-365	9-25	Blackett	f f f	0 160 3050 10	-	-	-
Pestchanie Creek							
259-366	8- 9	Prokopowich	g	0 0 1500 0	-	200Ch	Surveyed lower end only. Chums from creek to bay marker.
Few Creek							
259-367	8-17	Brennan	f f g	0 0 0 0	-	1300P	1300 hours. Fish lying off KEA dock. Most likely bound for main stream.
Dovolno Creek							
259-368	8-17	Brennan	f f f	0 0 0 0	500P 700Ch	100P	1305 hours.
Sheratin River							
259-371	7-29	Prokopowich	g	0 0 6500 500	-	7000P	-
259-371	7-30	Brennan	f f p	0 0 3700 900	-	-	1545 hours. Fish not very visible to the outside. Weather front moving in,. Wind increasing and clouds coming down. Only saw fish in stream. Surveyed only lower 1 mile.
259-371	8- 5	Prokopowich	g	0 0 14000 0	2000Ch	-	Most fish in lower end of river.
259-371	8- 9	Brennan	f f f	0 0 4800 1800	9000P	-	1810 hrs. Still just a small shot in river and several balls of bright chums outside.
Red Cloud Creek							
259-382	8- 9	Prokopowich	g	0 0 4000 0	-	-	-
259-382	8-17	Brennan	f g g	0 0 2500 1000	200P 700Ch	8500Ch	1330 hrs. Fairly good look at inner bay, flats, and river. Very little show of pinks; some dogs outside.
259-382	8-23	Brennan	e e e	0 0 2500 2120	150P 200Ch	400Ch	1315 hours.

259-383	8- 9	Prokopowich	g	0 0 0 200	-	-	Few jumpers in bay.
Monks Lagoon							
259-395	8-27	Brennan	e e e	0 74 31 0	300Co	-	Water very low but still flowing. All fish in pool just above beach. No fish in stream. Active jumpers in lagoon. See trip report.

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Appendix G.1. (page 29 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth	Fish Bay	Observer Remarks
Sacramento River										
259-401	8-18	Brennan	e e f	0	15	400	0	2P	-	1125 hours. Very poor show. Water a bit murky but good enough visibility. Evidence of severe flooding.
Pasagshak River										
259-411	6-12	Brennan	e g f	0	0	0	0	-	600R	0945 hrs. Good look at lake and lagoon. 0 fish sighted - thought I'd see kings! Oh well! Had a few reds in outside beach to west.
259-411	9-28	Brennan	f f f	4680	1503	0	0	-	-	1640 hrs. Still a lot of reds on shoals. Lake dark....hard to see coho. Plus 500 red carcasses.
259-411	10-15	Avery	g	0	260	0	0	-	-	Foot survey of river and tributaries. 43 coho carcasses not included in total.
259-411	10-28	Avery	g	0	690	0	0	-	-	Foot survey. 125 were in lake Rose Tead. 218 coho carcasses not included in total.
259-411	11- 5	Avery	f	0	1757	0	0	-	-	Foot survey. 416 coho carcasses not included in total.
Miam River										
259-412	7-18	Brennan	e e e	1600	0	0	0	-	-	1425 hrs. One ball of reds at north end of lake - not spread out on shoals yet. Lots of dollies at lake mouth (1,700) and in creek (?).
259-412	8-13	Prokopowich	e	1900	0	7500	0	2000P	-	Reds in lake near inlet stream.
259-412	8-14	Brennan	g g g	0	0	9970	0	50P	-	1200 hours. Lots of fish up by lake. Very few in lower river or in mouth. Nothing outside. Did not survey sloughs.
259-412	8-20	Brennan	g g f	0	0	6700	0	-	-	1540 hours. Count probably a bit low. Fish in lake along west shore hard to see. Low estimate of 900 in lake. No silvers seen.
259-412	9-28	Brennan	f g f	0	1271	0	0	-	-	1430 hours. Lake and stream muddy....not seeing all fish. 3 big schools in lake. All pretty colored up.
Hurst Creek										
259-414	8-13	Prokopowich	g	0	0	1300	100	-	-	Looks weak.
259-414	8-20	Brennan	g g g	0	0	6700	900	-	-	1615 hours. Fish spread throughout creek with highest concentration in lower one mile. No show out front.
259-414	10-29	Avery	f	0	372	0	0	-	-	Foot survey.
Saltery River										
259-415	6-12	Brennan	f g g	450	0	0	0	-	-	1015 hrs. Stream pretty murky still - only saw a portion of the fish present. Good look at lagoon and mouth. Nothing showing. Muddy along beaches. None seen outside - no jumpers.

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Appendix G.1. (page 30 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum	Build Up Fish Mouth Bay	Observer Remarks
259-415	7-18	Brennan	e e e	2095 0 0 200	- -	1430 hrs., Nothing showing outside. Stream fish breakdown...between weirs: 1,300 reds, ?? dollies; below lower weir: 295 reds; in lagoon 500 reds; 200 chums.
259-415	8-13	Prokopowich	g	0 0 4800 0	- -	Most fish are between weirs. Water murky.
259-415	8-20	Brennan	g g f	0 0 2600 270	1100Ch -	1330 hours. 1,200+ dollies. Not much show out front. Most mouth chums were to west in lagoon, ready to head into sloughs. Pretty light show otherwise. Lots of reds above upper river. Foot survey. 5 coho carcasses not included in total.
259-415	10-29	Avery	f	0 263 0 0	- -	
Rough Creek						
259-416	8-13	Prokopowich	g	0 0 0 1000	- -	Most in upper end of slough.
Short Slough Creek						
259-417A	8-13	Prokopowich	e	0 0 0 350	- 50Ch	Very poor for entire Hidden Basin streams.
259-417A	8-23	Brennan	e e e	0 0 0 0	- -	1250 hours.
Hidden Basin						
259-418	8-13	Prokopowich	e	0 0 0 100	150Ch -	
259-418	8-23	Brennan	e e e	0 0 45 0	- -	1245 hours. Deadsville! Surveyed all creeks and sloughs and tributaries, but no fish.
Glottot Creek						
259-420	8-23	Brennan	e e e	0 0 0 0	- -	1245 hours. No fish at all!
Goat Lake Creek						
259-422	8-23	Brennan	e e e	0 0 375 0	- -	1235 hours.
Kiliuda Pass Creek						
259-423	7-18	Brennan	e e e	0 0 0 0	- -	1500 hrs. Nothing showing in bay or stream.
259-423	8-13	Prokopowich	e	0 0 0 300	- -	Very poor.
259-423	8-23	Brennan	e e e	0 0 80 400	- -	1230 hours.
Eagle Harbor						
259-424	8-13	Prokopowich	e	0 0 1800 1200	200Ch -	Good water flow, looks weak.
259-424	8-20	Brennan	p f f	0 0 10350 2100	- -	1605 hours. No show outside. No silvers around yet.
259-424	9-28	Brennan	f g f	0 1416 0 230	- -	1445 hrs. Few coho in main stem or right fork. Two big schools in slough in middle of basin next to ridge. Mud in upper sections. Plus 500 pinks and 200 chum carcasses.

-Continued-

Appendix G.1. (page 31 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Fish Mouth Bay		Observer Remarks
Gull Cape Lagoon										
259-428	8-20	Brennan	f f p	0	0	0	5	-	-	1555 hours. No fish in sloughs and nothing visible in lagoon. Windy, so poor look.
259-428	9-28	Brennan	g f p	0	0	0	1530	-	-	1620 hours. Good look. All sloughs look well seeded. Plus 1,000 chum carcasses.
Swikshak River										
262-151	7-16	Brennan	g f p	4850	0	0	0	-	-	1600 hours. Bay and lower river very muddy...no fish visible. At spot river clears to river bend, lots of colored reds - no fish in upper river.
262-151	7-29	Prokopowich	e e e	22000	0	0	0	-	-	Reds in slough above muddy lagoon.
262-151	8-18	Prokopowich	g	14000	2500	0	0	-	-	Good start on coho escapement. Reds mostly colored up. Estimate 2,000 Dolly Varden.
Big River										
262-152	7-16	Brennan	e g p	0	0	0	225	1500Ch	-	1610 hours. Bay muddy...nothing showing on flats. A few hundred + visible right in mouth. Stream fish in lower 1/2 mile. Surveyed only lower 1 mile of stream. Tide way out.
262-152	7-29	Prokopowich	p p p	0	0	0	0	-	-	No survey. Too muddy.
262-152	8-13	Brennan	g g p	0	0	16500	29000	-	-	1510 hrs. Not much in lower river; a bit muddy. 4 planes with sportfishermen. Chums well distributed in mid river.
262-152	8-18	Prokopowich	g	0	500	10500	37000	-	-	Poor visibility on flats. Coho in lower end of creek.
Village Creek										
262-153	7-16	Brennan	e f p	0	0	0	350	1450Ch	-	1620 hours. Fish on beach just to north of mouth plus in lower stream and mouth. Bay too muddy to see outside.
262-153	7-29	Prokopowich	p p p	0	0	0	0	-	-	No survey. Too muddy.
262-153	8-13	Brennan	g g p	0	0	0	0	9000Ch	-	1520 hrs. Good shot of dogs just moving down beach to mouth. Nothing above yet.
262-153	8-18	Prokopowich	g g g	0	0	25000	40000	1000Ch	2000Ch	Bay fish between Village and Chiniak. Numerous schools in surf.
Chiniak Lagoon										
262-154	7-16	Brennan	e g p	0	0	0	650	1800Ch	-	1630 hours. Fish in lower lagoon and along beach to north. Water low in lagoon - no fish in upper portion or creeks. Bay very muddy.
262-154	7-29	Prokopowich	f	0	0	0	0	1000Ch	-	Fish at entrance to lagoon.
262-154	8-13	Brennan	g g p	0	0	0	26000	10000Ch	-	1525 hrs. Dogs speak throughout lagoon and right outside. Bay muddy.
Hallo Bay										
262-20	8-13	Brennan	p p p	0	0	0	0	-	-	1540 hrs. Too muddy.

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Appendix G.1. (page 32 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream----- Reds Coho Pink Chum				Build Up Mouth	Fish Bay	Observer Remarks
Serpent Creek										
262-203	7-16	Brennan	e f p	0	0	0	0	-	-	1640 hrs.
Hallo Creek										
262-204	7-16	Brennan	e f p	0	0	0	0	-	-	1640 hours. Lots of mud in bay. No fish visible in streams, sloughs or river mouths. Lots of bears.
Little Ninagiak										
262-207	7-16	Brennan	e f p	0	0	0	0	-	-	1640 hrs. No fish visible. Lots of bears.
262-207	7-29	Prokopowich	p	0	0	0	0	-	-	No survey in outer Hallo Bay. Too muddy.
Kukak Bay										
262-25	7-16	Brennan	p p	0	0	0	0	-	-	1655 hours. Nothing showing at all. Bay very muddy.
Yugnak Creek										
262-254	8-18	Prokopowich	g	0	0	0	0	2000P	-	No stream survey.
Kukak River										
262-271	8-13	Brennan	g g g	0	0	1500	0	2500P	-	1550 hrs.
262-271	8-18	Prokopowich	f	0	0	1000	8200	1000Ch	-	No jumpers seen in bay. Water murky. 6,000 chum in main river, 2,200 chum in sample fork.
262-271	9- 5	Prokopowich	f	0	0	0	5000	55000Ch	-	Poor visibility in bay. No jumpers seen. Good bear activity on main river but too murky to see must of fish.
Kafila Creek										
262-301	7-16	Brennan	e g f	25700	0	0	0	9000R	-	1710 hours. Fish heavy in lake, at creek from upper lake. Nothing in upper lake. Fish also at mouth and in lagoon.
262-301	8-13	Brennan	g g g	49500	0	0	0	1800R	1200R	1559 hrs. Big schools at upper creek, plus 8 to 10 balls of fish in lagoon and 1 school right outside. Plane with 3 sportfishermen.
262-301	9- 5	Prokopowich	e	5500	0	0	0	-	-	Partial survey. Upper lake only. Sport fishermen in bay.
Halferty Creek										
262-351	7-16	Brennan	g f p	0	0	0	0	-	-	1720 hours - nothing in lake or stream. Nothing seen in bay.
262-351	8-13	Brennan	g g g	1100	0	1200	0	-	-	1607 hrs.

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Appendix G.1. (page 33 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish		Observer Remarks
				Reds	Coho	Pink	Chum	Mouth	Bay	
Missak Creek										
262-402	7-29	Prokopowich	g		0	0	0	2000P	-	Didn't survey creek. One seiner and plane working. 1615 hrs.
262-402	8-13	Brennan	g g f		0	0	1200	0	1700P 7400P	
Kinak Creek										
262-451	8-13	Brennan	g f f		0	0	1400	1100P	-	1630 hrs. Little in upper end. Most in school. Few scattered schools to north. Looks weak. Nothing seen off mouth. Most fish schooling in lower end of river.
262-451	8-18	Prokopowich	g		0	0	8000	1000P	-	
262-451	9- 5	Prokopowich	e		0	0	26000	-	-	
Low Pass Creek										
262-453	8-18	Prokopowich	g		0	0	0	500P	-	No stream survey.
Geographic Creek										
262-501	7-29	Prokopowich	p		0	0	0	-	-	No survey. Rain squalls. 1643 hrs. Murky. Water murky.
262-501	8-13	Brennan	g f p		0	0	1100	-	400P	
262-501	8-18	Prokopowich	g		0	0	6000	-	-	
Ried Creek										
262-504	8-18	Prokopowich	g		0	0	1000	-	-	-
Dakavak										
262-551	8-13	Brennan			0	0	3500	22000P	13000P	1700 hrs. 30,000 mixed. Pink and chum off mouth. Bright fish. Looks very good, very little show off mouth.
262-551	8-18	Prokopowich	g		0	0	15000	-	22000P 8000Ch	
262-551	9- 5	Prokopowich	g		0	0	65000	10000	-	
Kashvik Creek										
262-604	7-29	Prokopowich	p		0	0	0	-	1000Ch	Chums along outside beach. No survey of river, too muddy. Looks good. Lots of sport fishermen and tents.
262-604	8-18	Prokopowich	g		0	0	50000	5000	-	
Big Alinchak										
262-651	7-29	Prokopowich	f		0	0	2000	-	20000P	Scattered schools of pinks along beach. Looks good. 1505 hrs. Great show of fish. Fish in mouth likely susceptible to commercial fishery - could back out. Looks good.
262-651	8-10	Brennan	g g g		0	0	86500	0	58000P 37000P	
262-651	8-18	Prokopowich	g		0	0	80000	3000	-	
Little Alinchak										
262-652	7-29	Prokopowich	f		0	0	0	-	2000P	Didn't survey creek. 1500 hours. Wow! A lot of fish sitting in weeds up inside. High estimate 140K! 206 on beach. Hard to see in creek.
262-652	8-10	Brennan	g g g		0	0	10500	0	97000P -	
262-652	8-18	Prokopowich	f		0	0	6000	-	-	

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Appendix G.1. (page 34 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Mouth	Fish Bay	Observer Remarks
				Reds	Coho	Pink	Chum			
Pterodactyl Creek										
262-653	7-29	Prokopowich	g	0	0	0	0	-	12000P	Most fish towards Little Alinchak.
262-653	8-18	Prokopowich	g	0	0	16000	0	2000P	4000P	Bay fish along outside beach.
Bear Bay Creek										
262-654	7-29	Prokopowich	f	0	0	0	0	-	-	Nothing seen in creek.
262-654	8-18	Prokopowich	g	0	0	2000	9000	-	1500Ch	Looks good.
West Bear Creek										
262-656	7-29	Prokopowich	f	0	0	0	300	-	1500Ch	Two seiners working.
262-656	8-18	Prokopowich	g	0	0	500	700	-	-	-
Helen Creek										
262-701	8-10	Brennan	g g g	0	0	2300	0	8700P	-	1450 hours. Jumpers outside but unable to estimate number of fish.
Portage Creek										
262-702	8-10	Brennan	g g g	0	0	16700	0	-	-	1440 hours.
Trail Creek										
262-704	8-10	Brennan	g g g	0	0	0	7500	2000Ch	2000Ch	1430 hrs.
Katie Creek										
262-705	8-10	Brennan	g g g	0	0	1800	0	2700P	8400P	1420 hrs.
Oil Creek										
262-751	7-29	Prokopowich	f	0	0	6500	0	-	-	Poor visibility off mouth.
262-751	8-10	Brennan	g g g	0	0	79500	0	-	15000P	1410 hrs. Great escapement. Fish evenly spread way up creek. New fish moving in.
Dry Bay										
262-752	7-29	Prokopowich	p	0	0	0	0	-	-	Too muddy for survey.
262-752	8-10	Brennan	g g g	0	0	5400	0	-	-	1350 hrs. Some jumpers offshore but not much showing.
Jute Creek										
262-801	8-10	Brennan	g g g	0	0	900	0	200P	-	1335 hrs. Not much.
Kanatak										

-Continued-

Appendix G.1. (page 35 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish Mouth Bay	Observer Remarks
				Reds	Coho	Pink	Chum		
262-802	8- 7	Brennan	g g g	0	0	17800	0	3000P -	1720 hrs. Looks great. Fish in loose schools in upper flats, plus a lot of fish in "lagoon" in pre-emergent area.
262-802	8-10	Brennan	g g g	0	0	18500	5000	5000P 2000Ch 17000P	1325 hrs. Good show, outside and in.
Big Creek									
262-851	7-29	Prokopowich	g	0	0	15000	45000	- 6500P 1500Ch	Poor visibility off mouth. Excellent for chums at this time.
262-851	8- 7	Brennan	f g g	0	0	116500	43500	-	1700 hrs. Excellent escapement. Dogs were spread on gravel shale, pinks balled up in corners and in upper river. A lot of fish still in lower 1/2 mile of river but no fish seen at mouth or outside. Side channel to north with 9,500 chums.
262-851	8-10	Brennan	g g g	0	0	165000	32000	25000P 2500P	1300 hrs. Some small dabs on beach and 3 balls of fish, 12K chums, 5K pinks in slough/creek to north. Fish well spread in stream. Not a lot of new showing
Des Moines Creek									
262-852	8- 7	Brennan	g g g	0	0	28300	0	23000P -	1651 hrs. Most fish below forks. Only 5,000 in south fork and 1,300 in north fork. A lot of fish right at mouth.
Pass Creek									
262-853	8- 7	Brennan	g g g	0	0	10900	0	- -	1645 hrs. Excellent distribution. Most of fish in lower 1/3, but plenty of fish above. Seiners working out front.
Short Creek									
262-854	7-29	Prokopowich	f	0	0	1000	0	- -	Pinks in lower river.
262-854	8- 7	Brennan	f f f	0	0	800	1500	1500Ch -	1640 hrs.
Spit Creek									
262-856	7-29	Prokopowich	f	0	0	0	0	- 9000Ch	Chums scattered along spit.
262-856	8- 7	Brennan	f f f	0	0	400	0	-	1639 hrs. A few fish just inside creek mouth. Only surveyed 1/4 mile.
Kialagvik Creek									
262-858	8- 7	Brennan	f f f	0	0	500	1800	- -	1635 hrs. Windy as hell....quick look.
Icy Peak Creek									
262-859	7-29	Prokopowich	f	0	0	0	7500	- -	1,500 chums in east clear fork, 6,000 chums in west clear fork. Few jumpers inside bay markers.

-Continued-

Appendix G.1. (page 36 of 36)

Stream	Date MM-DD	Observer	Visibility Str Mou Bay	-----Fish in Stream-----				Build Up Fish	Observer Remarks	
				Reds	Coho	Pink	Chum	Mouth Bay		
262-859	8- 7	Brennan	p f f	0	0	600	0	6P -	1632 hrs. Very turbulent....quick look. Not much visible; water murky.	
Slough Creek										
262-860	8- 7	Brennan	f f	0	0	0	0	800P -	1632 hrs. No stream survey...too turbulent.	
Imuya Creek										
262-951	8- 7	Brennan	f g g	0	0	1100	0	- -	1628 hrs. Poor look at lagoon, very turbulent. Nothing left outside.	
Circ Creek										
262-952	8- 7	Brennan	F G G	0	0	0	0	200P -	1625 hrs.	
Kilokak Creek										
272-963	8- 7	Brennan	f g g	0	0	3900	0	2500P 19000P	1615 hrs. Windy but good survey. A lot of fish right out front. Will likely get robbed....seven seiners at Imuya looking around.	

Appendix G.2. Index peak salmon escapement counts for the Afognak District, by stream and species, 1990.

Stream	Number of Fish*					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	Chinook			
251-101	189	2,635	6	-	0	8/30	Brennan	
	-	-	0	500	0	9/13	Brennan	5
251-102	0	1,110	0	0	0	8/30	Brennan	1
251-105	3,800	53,700	0	-	0	8/13	Brennan	
	-	-	0	1,035	0	10/23	Lechner	8
251-301	0	1,200	400	0	0	8/13	Brennan	1
251-302	500	0	0	0	0	7/12	Brennan	
	0	1,200	0	0	0	8/13	Brennan	4
251-403	0	1,000	0	0	0	8/13	Brennan	2
251-404	5	21,749	886	49	0	9/22	Weir Count	
251-504	0	0	0	0	0	8/18	Prokopowich	1
251-601	0	849	0	1,535	0	9/30	Weir Count	
251-705	0	682	0	926	0	9/17	Weir Count	
251-821	0	1,400	0	0	0	8/18	Prokopowich	2
251-822	0	47,000	18	10	0	9/15	Weir Count	
251-825	3,670	7,547	3	4,277	0	9/08	Weir Count	
251-831	14,510	775	0	3,668	0	9/08	Weir Count	
251-901	0	4,600	0	0	0	8/13	Brennan	2
252-301	0	0	0	0	0	8/29	Brennan	1
252-302	0	150	0	0	0	8/29	Brennan	1
252-306	0	3,704	0	0	0	8/29	Brennan	3
252-307	0	0	0	69	0	8/29	Brennan	2
252-308	0	0	0	0	0	8/29	Brennan	1
252-309	0	7	0	0	0	8/29	Brennan	1
252-310	0	0	0	0	0	8/29	Brennan	1
252-323	0	0	0	0	0	9/15	Joyce	1
252-324	0	0	0	0	0	9/15	Joyce	1
252-331	0	31	0	374	0	8/28	Brennan	1
252-332	0	4,500	0	0	0	8/09	Prokopowich	
	0	0	0	100	0	8/28	Brennan	4
252-333	0	400	0	0	0	8/13	Brennan	1
252-334	0	22	0	50	0	8/28	Brennan	1
252-336	0	20	0	0	0	8/28	Brennan	1
252-342	90,666	27,808	0	13,380	0	9/17	Weir Count	
252-342*	2	4,297	2	54	0	9/16	Weir Count	
252-343	0	20,000	0	0	0	8/09	Prokopowich	4
	113,342	206,386	1,315	26,027	0			50

Appendix G.3. Index peak salmon escapement counts for the Northwest Kodiak District, by stream and species, 1990.

Stream	Number of Fish*					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	Chinook			
253-115	26,300	120,800	0	0	0	8/14	Hander	
	-	250	0	0	0	9/25	Hander	6
253-121	0	2,900	0	0	0	8/17	Brennan	5
253-122	65,551	77,015	2,560	5,261	0	10/14	Weir Count	
253-331	0	-	5,000	0	0	8/05	Prokopowich	
	0	31,700	-	0	0	8/09	Brennan	
	0	26,620	-	30	0	9/08	Blackett	14
253-332	0	18,000	0	0	0	8/13	Prokopowich	5
254-103	0	0	0	0	0	8/21	Prokopowich	1
254-202	0	-	6,000	0	0	8/05	Prokopowich	
	0	20,000	-	0	0	8/13	Prokopowich	
	0	0	0	820	0	9/25	Hander	13
254-203	0	1,500	0	0	0	8/05	Prokopowich	6
254-204	0	36,500	0	0	0	8/13	Prokopowich	
	0	0	0	650	0	9/25	Hander	7
254-213	0	0	0	0	0	7/24	Brennan	1
254-301	0	-	12,800	0	0	8/05	Prokopowich	
	0	37,500	-	0	0	8/13	Prokopowich	
	0	0	0	10,100	0	9/25	Hander	12
254-401	0	-	5,000	0	0	8/05	Prokopowich	
	0	800	-	3,800	0	9/25	Hander	5
254-404	0	2,000	0	0	0	8/21	Prokopowich	1
259-362	0	0	0	1,200	0	9/13	Brennan	1
259-363	1,800	0	0	0	0	6/27	Prokopowich	3
259-365	0	7,500	-	0	0	8/09	Prokopowich	
	0	0	2,300	0	0	8/17	Brennan	
	0	7,900	0	0	0	9/08	Blackett	
	0	0	0	160	0	9/25	Blackett	9
259-366	0	1,500	0	0	0	8/09	Prokopowich	1
259-367	0	0	0	0	0	8/17	Brennan	2
259-368	0	500	700	0	0	8/17	Brennan	1
259-371	0	14,000	2,000	0	0	8/05	Prokopowich	4
259-382	0	4,000	0	0	0	8/09	Prokopowich	
	0	-	2,320	0	0	8/23	Brennan	3
259-383	0	0	200	0	0	8/09	Prokopowich	1
259-395	0	31	0	374	0	8/27	Brennan	1
	93,651	411,016	38,880	22,395	0			102

Appendix G.4. Index peak salmon escapement counts for the Southwest Kodiak District, by stream and species, 1990.

Stream	Number of Fish*					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	Chinook			
255-101	738,088	3,423,969	400	-	14,442	9/26	Weir Count	16
	0	0	0	28,275	0	10/01	Hander	
256-201	371,282	708,372	117	17,539	11,251	9/08	Weir Count	8
256-401	0	0	90,000	0	0	6/27	Prokopowich	
	0	36,600	-	0	0	8/14	Brennan	8
	0	0	0	3,260	0	9/25	Hander	
256-402	0	0	28,400	0	0	7/25	Hander	5
	0	1,600	0	0	0	8/14	Brennan	
	0	0	0	600	0	9/25	Hander	5
	1,109,370	4,170,541	118,917	49,674	25,693			29

Appendix G.5. Index peak salmon escapement counts for the Alitak Bay District, by stream and species, 1990.

Stream	Number of Fish*					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	Chinook			
257-102	0	0	6,400	0	0	8/05	Prokopowich	6
	0	7,800	-	-	0	8/08	Hander	
	0	0	0	1,015	0	10/01	Hander	
257-302	47,181	2,685	0	4,232	1	9/22	Weir Count	5
257-303	-	30	0	0	0	7/25	Hander	
	5,110	0	0	0	0	8/08	Hander	
	0	0	0	1,635	0	10/29	Hander	13
257-304	254,446	948	2	7,491	4	9/21	Weir Count	
257-402	2,111	387	179	234	0	9/12	Weir Count	
257-403	254,540	4,718	6,520	6,464	270	9/05	Weir Count	2
257-502	0	-	1,500	0	0	8/05	Prokopowich	
	0	9,000	-	0	0	8/13	Prokopowich	
	0	0	0	2,650	0	9/25	Hander	4
257-503	0	0	40	0	0	8/05	Brennan	
	0	500	0	0	0	8/14	Hander	
257-601	0	0	0	215	0	10/02	Hander	1
257-602	0	205	0	0	0	8/05	Brennan	
257-603	0	190	-	0	0	8/05	Brennan	
	0	-	1,800	0	0	8/05	Prokopowich	1
257-604	0	50	0	0	0	8/05	Brennan	
257-701	0	62,500	0	0	0	8/13	Prokopowich	
	0	0	0	2,130	0	10/02	Hander	10
	563,388	89,013	16,441	26,066	275			44

Appendix G.6. Index peak salmon escapement counts for the Eastside Kodiak District, by stream and species, 1990.

Stream	Number of Fish*					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	Chinook			
258-202	0	1,500	400	0	0	8/23	Brennan	1
258-203	0	500	0	0	0	8/23	Brennan	1
258-204	0	500	4,200	0	0	8/23	Brennan	2
258-205	0	0	2,800	0	0	8/13	Prokopowich	
	0	50	0	0	0	8/23	Brennan	2
258-206	0	0	25	0	0	8/05	Brennan	
	0	930	0	0	0	8/23	Brennan	3
258-207	0	2,100	650	0	0	8/13	Prokopowich	
	0	0	0	420	0	10/02	Hander	7
258-208	0	1,850	680	0	0	8/23	Brennan	2
258-210	0	0	2,000	0	0	8/13	Prokopowich	1
258-211	0	80	0	0	0	8/05	Brennan	1
258-212	0	700	600	0	0	8/23	Brennan	2
258-213	0	0	0	0	0	8/05	Brennan	1
258-305	0	0	0	0	0	7/16	Hander	1
258-306	0	0	0	0	0	7/16	Hander	1
258-401	5,420	0	0	0	0	7/18	Brennan	
	-	0	0	581	0	9/28	Brennan	3
258-511	0	14,000	12,800	0	0	8/20	Brennan	1
258-512	0	20	5	0	0	8/20	Brennan	1
258-513	0	10	10	0	0	8/20	Brennan	1
258-512	0	250	0	0	0	8/20	Brennan	1
258-521	0	27,850	4,200	0	0	8/23	Brennan	
	0	0	0	4,045	0	10/02	Hander	6
258-522	21	8,048	2,529	-	0	8/23	Weir Count	
	0	38,000	6,000	0	0	8/23	Brennan	7
	0	0	0	1,212	0	10/02	Hander	10
258-523	0	550	30	0	0	8/23	Brennan	1
258-531	0	0	0	0	0	10/02	Hander	1
258-532	0	0	0	0	0	10/02	Hander	2
258-533	0	0	0	0	0	7/16	Hander	1
258-541	0	8,700	0	0	0	8/14	Brennan	
	0	75	0	650	0	10/02	Hander	6
258-542	0	20,200	0	0	0	8/14	Brennan	
	0	0	0	220	0	10/02	Hander	4
258-544	0	3,000	0	0	0	8/14	Hander	1
258-551	0	25,200	0	0	0	8/05	Brennan	4
258-554	0	0	0	0	0	7/16	Hander	1
258-555	0	0	0	80	0	10/02	Hander	1
258-601	0	0	0	0	0	7/29	Brennan	1
258-602	0	940	70	0	0	8/05	Brennan	1
258-603	0	2,700	0	0	0	8/14	Brennan	3
258-701	0	45	0	0	0	7/18	Brennan	
	0	79,550	0	0	0	8/20	Brennan	7
258-703	0	600	0	0	0	8/05	Brennan	1
258-705	0	300	0	0	0	8/05	Brennan	3
258-706	0	0	0	0	0	8/10	Brennan	3
258-707	0	0	0	0	0	8/05	Brennan	1
258-901	0	0	0	0	0	7/29	Brennan	1
259-401	0	402	0	15	0	8/18	Brennan	1
259-411	4,680	0	0	0	0	9/28	Brennan	
	0	0	0	1,757	0	11/05	Avery	
259-412	1,900	-	0	0	0	8/13	Prokopowich	
	-	10,020	0	0	0	8/14	Brennan	
	0	0	0	1,271	0	9/28	Brennan	4
259-414	0	6,700	900	0	0	8/20	Brennan	
	0	0	0	372	0	10/29	Avery	3
259-415	-	-	1,370	0	0	8/20	Brennan	5
	29,541	4,556	-	2,847	4	9/18	Weir Counts	
259-416	0	0	1,000	0	0	8/13	Prokopowich	1
259-417a	0	0	350	0	0	8/13	Prokopowich	2
259-418	0	0	100	0	0	8/13	Prokopowich	
	0	45	0	0	0	8/23	Brennan	2
259-420	0	0	0	0	0	8/23	Brennan	1
259-422	0	375	0	0	0	8/23	Brennan	1
259-423	0	80	400	0	0	8/23	Brennan	3
259-424	0	10,350	2,100	0	0	8/20	Brennan	
	0	0	0	1,416	0	9/28	Brennan	3
259-428	0	0	2,530	0	0	9/28	Brennan	2
	41,562	270,776	45,749	14,886	4			126

Appendix G.7. Index peak salmon escapement counts for the Northeast Kodiak District, by stream and species, 1990.

Stream	Number of Fish*					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	Chinook			
259-101	0	6,500	0	0	0	8/14	Brennan	
	0	0	0	53	0	10/23	Avery	5
259-102	0	4,580	0	0	0	8/20	Brennan	
	0	0	0	45	0	10/23	Avery	6
259-211	10,528	40,138	18	6,222	0	9/07	Weir Count	
	-	11,579	0	-	0	9/07	Smith	7
259-221	0	5,180	0	0	0	8/18	Brennan	3
259-222	0	4,180	200	0	0	8/18	Brennan	
	0	0	0	16	0	10/21	Avery	3
259-223	0	4,490	0	0	0	8/18	Brennan	
	0	0	0	187	0	11/04	Avery	3
259-231	0	25,000	2,500	0	0	8/21	Prokopowich	
	0	0	0	419	0	10/19	Avery	9
259-233	0	0	0	0	0	8/18	Brennan	1
259-242	0	30,000	-	0	0	8/13	Prokopowich	
	0	-	4,500	0	0	8/20	Brennan	
	0	0	0	1,706	0	10/17	Avery	8
259-243	0	3,250	0	0	0	8/18	Brennan	2
259-244	0	65	0	0	0	8/18	Brennan	1
259-245	0	7,700	0	0	0	8/18	Brennan	2
259-246	0	0	0	0	0	8/18	Brennan	1
259-250	0	500	0	0	0	8/18	Brennan	1
259-251	0	39,450	0	0	0	8/18	Brennan	
	0	-	100	-	0	9/06	Schwarz	
	0	0	0	676	0	10/30	Brennan	5
259-252	0	15,750	0	0	0	8/18	Brennan	2
259-253	0	2,250	0	0	0	8/18	Brennan	2
259-254	0	27,050	0	0	0	8/18	Brennan	
	0	0	0	48	0	9/03	Brennan	3
	10,528	227,662	7,318	9,372	0			64

Appendix G.8. Index peak salmon escapement counts for the Mainland District, by stream and species, 1990.

Stream	Number of Fish ^a					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	Chinook			
262-151	22,000	0	0	0	0	7/29	Prokopowich	
	-	0	0	2,500	0	8/18	Prokopowich	3
262-152	0	16,500	-	0	0	8/13	Brennan	
	0	-	37,000	500	0	8/18	Prokopowich	4
262-153	0	25,000	40,000	0	0	8/18	Prokopowich	4
262-154	0	0	26,000	0	0	8/13	Brennan	3
262-203	0	0	0	0	0	7/16	Brennan	1
262-204	0	0	0	0	0	7/16	Brennan	1
262-207	0	0	0	0	0	7/29	Prokopowich	2
262-254	0	2,000	0	0	0	8/18	Prokopowich	1
262-271	0	4,000	-	0	0	8/13	Brennan	
	0	-	60,000	0	0	9/05	Prokopowich	3
262-301	51,300	0	0	0	0	8/13	Brennan	3
262-351	1,100	1,200	0	0	0	8/13	Brennan	2
262-402	0	2,900	0	0	0	8/13	Brennan	2
262-451	0	26,000	0	0	0	9/05	Prokopowich	3
262-453	0	500	0	0	0	8/18	Prokopowich	1
262-501	0	6,000	0	0	0	8/18	Prokopowich	3
262-504	0	1,000	0	0	0	8/18	Prokopowich	1
262-551	0	65,000	10,000	0	0	9/05	Prokopowich	3
262-604	0	50,000	5,000	0	0	8/18	Prokopowich	2
262-651	0	86,500	0	0	0	8/10	Brennan	
	0	-	3,000	0	0	8/18	Prokopowich	3
262-652	0	10,500	0	0	0	8/10	Brennan	3
262-653	0	16,000	0	0	0	8/18	Prokopowich	2
262-654	0	2,000	9,000	0	0	8/18	Prokopowich	2
262-656	0	500	700	0	0	8/18	Prokopowich	2
262-701	0	2,300	0	0	0	8/10	Brennan	1
262-702	0	16,700	0	0	0	8/10	Brennan	1
262-704	0	0	7,500	0	0	8/10	Brennan	1
262-705	0	1,800	0	0	0	8/10	Brennan	1
262-751	0	79,500	0	0	0	8/10	Brennan	2
262-752	0	5,400	0	0	0	8/10	Brennan	2
262-801	0	900	0	0	0	8/10	Brennan	1
262-802	0	18,500	5,000	0	0	8/10	Brennan	2
262-851	0	165,000	32,000	0	0	8/10	Brennan	3
262-852	0	28,300	0	0	0	8/07	Brennan	1
262-853	0	10,900	0	0	0	8/07	Brennan	1
262-854	0	1,000	0	0	0	7/29	Prokopowich	
	0	-	1,500	0	0	8/07	Brennan	2
262-856	0	400	0	0	0	8/07	Brennan	2
262-858	0	500	1,800	0	0	8/07	Brennan	1
262-859	0	0	7,500	0	0	7/29	Prokopowich	
	0	606	0	0	0	8/07	Brennan	2
262-860	0	800	0	0	0	8/07	Brennan	1
262-951	0	1,100	0	0	0	8/07	Brennan	1
262-952	0	200	0	0	0	8/07	Brennan	1
	74,400	649,506	246,000	3,000	0			80

Appendix G.9. Indexed peak salmon escapement by district and species, Kodiak Management Area, 1990.

District	Number of Salmon					Number of Observations
	Sockeye	Pink	Chum	Coho	Chinook	
Afognak	113,342	206,386	1,315	26,027	0	50
Northwest	93,651	411,016	38,880	22,395	0	102
Southwest	1,109,370	4,170,541	118,917	49,674	25,693	29
Alitak	563,388	89,013	16,441	26,066	275	44
Eastside	41,562	270,776	45,749	14,886	4	126
Northeast	10,528	227,662	7,318	9,372	0	64
Mainland	74,400	649,506	246,000	3,000	0	80
TOTAL	2,006,241	6,024,900	474,620	151,420	25,972	495

Appendix G.10. Karluk daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
May 29	0	0	42	42	0	0	0	0	0	0
30	147	147	236	278	0	0	0	0	0	0
31	176	323	259	537	0	0	0	0	0	0
Jun 1	40	363	109	646	0	0	0	0	0	0
2	126	489	444	1,090	0	0	0	0	0	0
3	89	578	221	1,311	0	0	0	0	0	0
4	325	903	275	1,586	0	0	0	0	0	0
5	1,140	2,043	357	1,943	0	0	0	0	0	0
6	5,023	7,066	486	2,429	0	0	0	0	0	0
7	7,259	14,325	540	2,969	0	0	0	0	0	0
8	4,699	19,024	464	3,433	0	0	0	0	0	0
9	7,673	26,697	1,023	4,456	0	0	0	0	0	0
10	13,010	39,707	976	5,432	0	0	0	0	0	0
11	16,206	55,913	378	5,810	0	0	0	0	0	0
12	13,518	69,431	521	6,331	0	0	0	0	0	0
13	14,199	83,630	494	6,825	0	0	0	0	0	0
14	9,815	93,445	496	7,321	0	0	0	0	0	0
15	7,559	101,004	277	7,598	0	0	0	0	0	0
16	8,975	109,979	321	7,919	0	0	0	0	0	0
17	5,954	115,933	151	8,070	0	0	0	0	0	0
18	8,851	124,784	291	8,361	0	0	0	0	0	0
19	10,005	134,789	588	8,949	0	0	0	0	0	0
20	6,981	141,770	627	9,576	0	0	0	0	0	0
21	2,386	144,156	607	10,183	0	0	0	0	0	0
22	4,135	148,291	637	10,820	0	0	0	0	0	0
23	2,340	150,631	563	11,383	0	0	0	0	0	0
24	2,351	152,982	462	11,845	0	0	0	0	0	0
25	2,043	155,025	365	12,210	0	0	0	0	0	0
26	8,282	163,307	360	12,570	0	0	0	0	0	0
27	4,657	167,964	306	12,876	0	0	0	0	0	0
28	10,282	178,246	199	13,075	0	0	0	0	0	0
29	3,532	181,778	171	13,246	0	0	0	0	0	0
30	1,703	183,481	153	13,399	0	0	2	2	0	0
Jul 1	2,024	185,505	180	13,579	0	0	1	3	0	0
2	1,121	186,626	72	13,651	0	0	0	3	0	0
3	1,377	188,003	92	13,743	0	0	0	3	0	0
4	405	188,408	65	13,808	0	0	0	3	0	0
5	448	188,856	59	13,867	0	0	0	3	0	0
6	757	189,613	67	13,934	0	0	3	6	0	0
7	629	190,242	32	13,966	0	0	10	16	0	0
8	308	190,550	59	14,025	0	0	3	19	0	0
9	231	190,781	8	14,033	0	0	5	24	0	0
10	297	191,078	11	14,044	0	0	21	45	0	0
11	502	191,580	25	14,069	0	0	65	110	0	0
12	164	191,744	5	14,074	0	0	8	118	0	0
13	171	191,915	7	14,081	0	0	5	123	0	0
14	141	192,056	26	14,107	0	0	4	127	0	0
15	165	192,221	5	14,112	0	0	9	136	0	0
16	85	192,306	18	14,130	0	0	62	198	0	0
17	410	192,716	15	14,145	0	0	75	273	0	0
18	776	193,492	13	14,158	0	0	37	310	0	0
19	1,419	194,911	17	14,175	0	0	142	452	0	0
20	710	195,621	28	14,203	0	0	66	518	0	0
21	576	196,197	9	14,212	0	0	83	601	0	0
22	684	196,881	10	14,222	0	0	102	703	0	0
23	377	197,258	18	14,240	0	0	39	742	0	0
24	445	197,703	13	14,253	0	0	46	788	0	0
25	409	198,112	10	14,263	0	0	48	836	0	0
26	831	198,943	18	14,281	0	0	239	1,075	0	0
27	937	199,880	10	14,291	0	0	339	1,414	0	0
28	1,703	201,583	6	14,297	0	0	562	1,976	0	0
29	2,088	203,671	8	14,305	0	0	1,205	3,181	0	0
30	846	204,517	4	14,309	0	0	1,546	4,727	0	0
31	629	205,146	3	14,312	0	0	810	5,537	0	0
Aug 1	2,230	207,376	4	14,316	0	0	7,658	13,195	0	0
2	539	207,915	7	14,323	0	0	3,687	16,882	0	0
3	2,609	210,524	7	14,330	1	1	10,834	27,716	0	0
4	1,705	212,229	18	14,348	0	1	14,025	41,741	1	1
5	1,211	213,440	4	14,352	1	2	13,841	55,582	0	1
6	1,186	214,626	12	14,364	11	13	51,070	106,652	4	5
7	2,028	216,654	2	14,366	19	32	102,679	209,331	3	8

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Appendix G.10. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
8	2,455	219,109	6	14,372	11	43	113,570	322,901	0	8
9	7,807	226,916	7	14,379	14	57	439,970	762,871	9	17
10	2,880	229,796	4	14,383	2	59	124,077	886,948	5	22
11	2,538	232,334	6	14,389	3	62	196,786	1,083,734	5	27
12	12,434	244,768	7	14,396	9	71	251,820	1,335,554	7	34
13	9,222	253,990	2	14,398	7	78	179,870	1,515,424	3	37
14	3,335	257,325	0	14,398	5	83	307,417	1,822,841	4	41
15	3,576	260,901	0	14,398	2	85	328,030	2,150,871	2	43
16	1,378	262,279	1	14,399	5	90	180,850	2,331,721	0	43
17	739	263,018	1	14,400	3	93	35,992	2,367,713	0	43
18	661	263,679	0	14,400	0	93	72,627	2,440,340	2	45
19	666	264,345	1	14,401	4	97	102,443	2,542,783	3	48
20	870	265,215	2	14,403	17	114	94,018	2,636,801	4	52
21	4,629	269,844	2	14,405	48	162	106,568	2,743,369	19	71
22	3,710	273,554	4	14,409	41	203	121,275	2,864,644	14	85
23	1,265	274,819	4	14,413	31	234	189,829	3,054,473	9	94
24	428	275,247	2	14,415	9	243	82,258	3,136,731	3	97
25	394	275,641	2	14,417	15	258	98,908	3,235,639	6	103
26	461	276,102	5	14,422	14	272	45,912	3,281,551	4	107
27	3,029	279,131	5	14,427	33	305	67,062	3,348,613	4	111
28	892	280,023	1	14,428	4	309	11,473	3,360,086	2	113
29	650	280,673	4	14,432	6	315	8,728	3,368,814	1	114
30	241	280,914	0	14,432	0	315	6,276	3,375,090	1	115
31	21,969	302,883	1	14,433	28	343	15,065	3,390,155	2	117
Sep 1	20,691	323,574	2	14,435	36	379	11,931	3,402,086	7	124
2	46,696	370,270	1	14,436	34	413	7,654	3,409,740	3	127
3	87,690	457,960	5	14,441	109	522	7,717	3,417,457	4	131
4	24,431	482,391	1	14,442	288	810	2,759	3,420,216	11	142
5	27,113	509,504	0	14,442	144	954	2,595	3,422,811	3	145
6	1,630	511,134	0	14,442	23	977	391	3,423,202	1	146
7	1,011	512,145	0	14,442	19	996	515	3,423,717	4	150
8	943	513,088	0	14,442	14	1,010	252	3,423,969	0	150
9	225,000	738,088	0	14,442	13,000	14,010	0	3,423,969	250	400

Appendix G.11. Ayakulik daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
May 27	1,700	1,700	800	800	0	0	0	0	0	0
28	810	2,510	518	1,318	0	0	0	0	0	0
29	1,248	3,758	391	1,709	0	0	0	0	0	0
30	831	4,589	428	2,137	0	0	0	0	0	0
31	561	5,150	272	2,409	0	0	0	0	0	0
Jun 1	2,440	7,590	691	3,100	0	0	0	0	0	0
2	2,442	10,032	697	3,797	0	0	0	0	0	0
3	10,748	20,780	347	4,144	0	0	0	0	0	0
4	9,887	30,667	249	4,393	0	0	0	0	0	0
5	12,102	42,769	595	4,988	0	0	0	0	0	0
6	8,965	51,734	720	5,708	0	0	0	0	0	0
7	394	52,128	79	5,787	0	0	0	0	0	0
8	26,056	78,184	872	6,659	0	0	0	0	0	0
9	17,182	95,366	234	6,893	0	0	0	0	0	0
10	3,404	98,770	112	7,005	0	0	0	0	0	0
11	4,384	103,154	152	7,157	0	0	0	0	0	0
12	228	103,382	59	7,216	0	0	0	0	0	0
13	1,813	105,195	211	7,427	0	0	0	0	0	0
14	235	105,430	6	7,433	0	0	0	0	0	0
15	117	105,547	15	7,448	0	0	0	0	0	0
16	750	106,297	250	7,698	0	0	0	0	0	0
17	750	107,047	250	7,948	0	0	0	0	0	0
18	750	107,797	250	8,198	0	0	0	0	0	0
19	750	108,547	250	8,448	0	0	0	0	0	0
20	34	108,581	130	8,578	0	0	0	0	0	0
21	488	109,069	405	8,983	0	0	0	0	0	0
22	214	109,283	259	9,242	0	0	0	0	0	0
23	338	109,621	363	9,605	0	0	0	0	0	0
24	1,055	110,676	285	9,890	0	0	0	0	0	0
25	1,422	112,098	205	10,095	0	0	0	0	0	0
26	259	112,357	42	10,137	0	0	0	0	0	0
27	1,195	113,552	43	10,180	0	0	0	0	0	0
28	94	113,646	22	10,202	0	0	0	0	0	0
29	9,616	123,262	198	10,400	0	0	12	12	0	0
30	17,027	140,289	161	10,561	0	0	41	53	0	0
Jul 1	15,365	155,654	95	10,656	0	0	16	69	0	0
2	10,430	166,084	83	10,739	0	0	16	85	0	0
3	10,363	176,447	70	10,809	0	0	31	116	0	0
4	324	176,771	12	10,821	0	0	4	120	0	0
5	157	176,928	13	10,834	0	0	0	120	0	0
6	7,703	184,631	43	10,877	0	0	20	140	0	0
7	1,249	185,880	17	10,894	0	0	8	148	0	0
8	2,572	188,452	54	10,948	0	0	20	168	4	4
9	476	188,928	5	10,953	0	0	16	184	0	4
10	2,297	191,225	17	10,970	0	0	31	215	3	7
11	50	191,275	0	10,970	0	0	9	224	0	7
12	92	191,367	1	10,971	0	0	55	279	0	7
13	61	191,428	2	10,973	0	0	29	308	2	9
14	1,941	193,369	26	10,999	0	0	107	415	1	10
15	3,326	196,695	26	11,025	0	0	88	503	0	10
16	2,982	199,677	17	11,042	0	0	44	547	1	11
17	466	200,143	0	11,042	0	0	5	552	0	11
18	48	200,191	0	11,042	0	0	10	562	0	11
19	82	200,273	0	11,042	0	0	25	587	0	11
20	431	200,704	9	11,051	0	0	38	625	0	11
21	3,084	203,788	25	11,076	0	0	253	878	0	11
22	174	203,962	11	11,087	0	0	102	980	0	11
23	83	204,045	6	11,093	0	0	29	1,009	0	11
24	1,008	205,053	12	11,105	0	0	177	1,186	3	14
25	185	205,238	2	11,107	0	0	81	1,267	1	15
26	81	205,319	8	11,115	0	0	95	1,362	0	15
27	247	205,566	3	11,118	0	0	249	1,611	1	16
28	17,446	223,012	15	11,133	2	2	13,216	14,827	5	21
29	27,522	250,534	25	11,158	3	5	13,990	28,817	0	21
30	12,689	263,223	11	11,169	1	6	29,111	57,928	1	22
31	2,231	265,454	11	11,180	7	13	8,042	65,970	1	23
Aug 1	6,395	271,849	12	11,192	9	22	10,362	76,332	0	23
2	5,009	276,858	8	11,200	15	37	27,523	103,855	3	26
3	18,733	295,591	9	11,209	39	76	100,251	204,106	2	28
4	24,826	320,417	7	11,216	17	93	76,545	280,651	5	33
5	18,483	338,900	2	11,218	9	102	42,407	323,058	1	34

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Appendix G.11. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
6	8,497	347,397	4	11,222	10	112	52,435	375,493	1	35
7	6,450	353,847	6	11,228	6	118	31,596	407,089	0	35
8	4,932	358,779	5	11,233	14	132	38,651	445,740	0	35
9	1,463	360,242	0	11,233	2	134	10,433	456,173	0	35
10	2,697	362,939	4	11,237	72	206	31,688	487,861	0	35
11	453	363,392	1	11,238	40	246	12,491	500,352	1	36
12	554	363,946	1	11,239	64	310	14,642	514,994	3	39
13	541	364,487	0	11,239	60	370	11,202	526,196	2	41
14	458	364,945	3	11,242	57	427	20,435	546,631	3	44
15	105	365,050	0	11,242	13	440	2,714	549,345	0	44
16	719	365,769	3	11,245	109	549	35,484	584,829	6	50
17	306	366,075	1	11,246	124	673	13,748	598,577	1	51
18	309	366,384	0	11,246	186	859	12,986	611,563	3	54
19	514	366,898	3	11,249	203	1,062	6,122	617,685	1	55
20	843	367,741	0	11,249	444	1,506	15,090	632,775	3	58
21	217	367,958	0	11,249	97	1,603	3,660	636,435	0	58
22	454	368,412	0	11,249	327	1,930	8,770	645,205	0	58
23	581	368,993	0	11,249	706	2,636	22,252	667,457	3	61
24	268	369,261	0	11,249	284	2,920	7,623	675,080	1	62
25	223	369,484	0	11,249	310	3,230	3,883	678,963	4	66
26	258	369,742	0	11,249	265	3,495	2,309	681,272	0	66
27	310	370,052	0	11,249	622	4,117	7,994	689,266	7	73
28	96	370,148	0	11,249	376	4,493	2,489	691,755	3	76
29	67	370,215	0	11,249	148	4,641	772	692,527	1	77
30	95	370,310	0	11,249	215	4,856	790	693,317	0	77
31	312	370,622	1	11,250	1,038	5,894	2,268	695,585	0	77
Sep 1	63	370,685	0	11,250	395	6,289	779	696,364	0	77
2	92	370,777	1	11,251	763	7,052	2,678	699,042	1	78
3	120	370,897	0	11,251	978	8,030	3,817	702,859	4	82
4	109	371,006	0	11,251	1,939	9,969	2,275	705,134	5	87
5	86	371,092	0	11,251	602	10,571	1,244	706,378	2	89
6	56	371,148	0	11,251	1,113	11,684	953	707,331	4	93
7	84	371,232	0	11,251	5,855	17,539	541	707,872	14	107
8	50	371,282	0	11,251	5,000	22,539	500	708,372	10	117

Appendix G.12. Dog Salmon daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jun 11	0	0	9	9	0	0	0	0	0	0
12	0	0	2	11	0	0	0	0	0	0
13	0	0	4	15	0	0	0	0	0	0
14	0	0	0	15	0	0	0	0	0	0
15	0	0	0	15	0	0	0	0	0	0
16	0	0	0	15	0	0	0	0	0	0
17	0	0	0	15	0	0	0	0	0	0
18	0	0	0	15	0	0	0	0	0	0
19	0	0	0	15	0	0	0	0	0	0
20	0	0	1	16	0	0	0	0	0	0
21	23	23	5	21	0	0	0	0	1	1
22	0	23	0	21	0	0	0	0	1	2
23	68	91	39	60	0	0	0	0	8	10
24	35,326	35,417	109	169	0	0	0	0	84	94
25	71,610	107,027	53	222	0	0	0	0	191	285
26	41,040	148,067	22	244	0	0	0	0	118	403
27	21,898	169,965	5	249	0	0	0	0	21	424
28	430	170,395	0	249	0	0	0	0	1	425
29	6,037	176,432	2	251	0	0	0	0	29	454
30	205	176,637	0	251	0	0	0	0	0	454
Jul 1	352	176,989	0	251	0	0	0	0	0	454
2	1,204	178,193	0	251	0	0	0	0	3	457
3	2,345	180,538	2	253	0	0	0	0	2	459
4	372	180,910	1	254	0	0	0	0	7	466
5	0	180,910	0	254	0	0	0	0	0	466
6	78	180,988	0	254	0	0	0	0	3	469
7	177	181,165	0	254	0	0	0	0	0	469
8	2,061	183,226	0	254	0	0	0	0	16	485
9	197	183,423	0	254	0	0	0	0	5	490
10	848	184,271	0	254	0	0	0	0	13	503
11	13	184,284	0	254	0	0	0	0	0	503
12	4,556	188,840	8	262	0	0	0	0	85	588
13	408	189,248	0	262	0	0	0	0	2	590
14	125	189,373	0	262	0	0	0	0	32	622
15	4,310	193,683	0	262	0	0	0	0	55	677
16	5,235	198,918	0	262	0	0	0	0	41	718
17	4,210	203,128	0	262	0	0	0	0	36	754
18	580	203,708	0	262	0	0	0	0	1	755
19	120	203,828	0	262	0	0	0	0	4	759
20	12,666	216,494	5	267	0	0	0	0	163	922
21	741	217,235	0	267	0	0	0	0	12	934
22	6,918	224,153	0	267	0	0	0	0	121	1,055
23	8,995	233,148	1	268	0	0	0	0	118	1,173
24	51	233,199	0	268	0	0	0	0	8	1,181
25	798	233,997	0	268	0	0	0	0	8	1,189
26	5,901	239,898	0	268	0	0	0	0	247	1,436
27	1,294	241,192	0	268	0	0	0	0	9	1,445
28	605	241,797	0	268	0	0	0	0	8	1,453
29	2,616	244,413	0	268	0	0	2	2	9	1,462
30	51	244,464	0	268	0	0	1	3	0	1,462
31	0	244,464	0	268	0	0	0	3	0	1,462
Aug 1	606	245,070	0	268	0	0	8	11	4	1,466
2	181	245,251	0	268	0	0	3	14	2	1,468
3	539	245,790	0	268	0	0	0	14	1	1,469
4	359	246,149	0	268	0	0	0	14	0	1,469
5	10	246,159	0	268	0	0	0	14	0	1,469
6	1,519	247,678	1	269	0	0	8	22	0	1,469
7	503	248,181	0	269	0	0	0	22	0	1,469
8	0	248,181	0	269	0	0	0	22	0	1,469
9	145	248,326	0	269	0	0	0	22	7	1,476
10	3	248,329	0	269	0	0	0	22	0	1,476
11	1,976	250,305	0	269	0	0	3	25	13	1,489
12	43	250,348	0	269	0	0	0	25	0	1,489
13	119	250,467	0	269	0	0	5	30	0	1,489
14	0	250,467	0	269	0	0	0	30	0	1,489
15	557	251,024	0	269	12	12	32	62	0	1,489
16	323	251,347	0	269	5	17	13	75	0	1,489
17	0	251,347	0	269	0	17	0	75	0	1,489
18	657	252,004	0	269	90	107	1	76	2	1,491
19	11	252,015	1	270	37	144	9	85	0	1,491
20	14	252,029	0	270	19	163	37	122	0	1,491

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Appendix G.12. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum		
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	
21	0	252,029	0	270	0	163	0	122	0	1,491	
22	308	252,337	0	270	245	408	201	323	2	1,493	
23	169	252,506	0	270	37	445	98	421	2	1,495	
24	78	252,584	0	270	37	482	37	458	3	1,498	
25	114	252,698	0	270	104	586	211	669	1	1,499	
26	347	253,045	0	270	445	1,031	280	949	0	1,499	
27	278	253,323	0	270	506	1,537	311	1,260	3	1,502	
28	35	253,358	0	270	181	1,718	83	1,343	3	1,505	
29	48	253,406	0	270	289	2,007	250	1,593	0	1,505	
30	22	253,428	0	270	48	2,055	191	1,784	1	1,506	
31	129	253,557	0	270	96	2,151	312	2,096	0	1,506	
Sep	1	40	253,597	0	270	38	2,189	159	2,255	0	1,506
	2	26	253,623	0	270	31	2,220	97	2,352	0	1,506
	3	605	254,228	0	270	911	3,131	324	2,676	6	1,512
	4	12	254,240	0	270	53	3,184	42	2,718	8	1,520
	5	300	254,540	0	270	3,300	6,484	2,000	4,718	5,000	6,520

Appendix G.13. Frazer Lake daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jun 24	0	0	1	1	0	0	0	0	0	0
25	15	15	2	3	0	0	0	0	0	0
26	78	93	7	10	0	0	0	0	0	0
27	4,062	4,155	8	18	0	0	0	0	0	0
28	27,657	31,812	6	24	0	0	0	0	0	0
29	37,429	69,241	9	33	0	0	0	0	0	0
30	10,904	80,145	3	36	0	0	0	0	0	0
Jul 1	14,424	94,569	0	36	0	0	0	0	0	0
2	24,152	118,721	7	43	0	0	0	0	0	0
3	23,403	142,124	42	85	0	0	0	0	0	0
4	10,728	152,852	12	97	0	0	0	0	0	0
5	969	153,821	0	97	0	0	0	0	0	0
6	1,511	155,332	1	98	0	0	0	0	0	0
7	3,685	159,017	1	99	0	0	0	0	0	0
8	777	159,794	3	102	0	0	0	0	0	0
9	131	159,925	7	109	0	0	0	0	0	0
10	678	160,603	0	109	0	0	0	0	0	0
11	800	161,403	16	125	0	0	0	0	0	0
12	341	161,744	3	128	0	0	0	0	0	0
13	109	161,853	0	128	0	0	0	0	0	0
14	312	162,165	2	130	0	0	0	0	0	0
15	686	162,851	3	133	0	0	0	0	0	0
16	5,594	168,445	12	145	0	0	0	0	0	0
17	1,761	170,206	3	148	0	0	0	0	0	0
18	5,297	175,503	8	156	0	0	0	0	0	0
19	936	176,439	8	164	0	0	0	0	0	0
20	638	177,077	0	164	0	0	0	0	0	0
21	3,292	180,369	1	165	0	0	0	0	0	0
22	7,947	188,316	0	165	0	0	0	0	0	0
23	837	189,153	1	166	0	0	0	0	0	0
24	328	189,481	0	166	0	0	0	0	0	0
25	6,756	196,237	0	166	0	0	0	0	0	0
26	276	196,513	0	166	0	0	0	0	0	0
27	1,634	198,147	0	166	0	0	0	0	0	0
28	6,049	204,196	0	166	0	0	0	0	0	0
29	4,523	208,719	0	166	0	0	0	0	0	0
30	5,312	214,031	0	166	0	0	0	0	0	0
31	1,553	215,584	1	167	0	0	0	0	0	0
Aug 1	2,493	218,077	0	167	0	0	0	0	0	0
2	950	219,027	10	177	0	0	0	0	0	0
3	770	219,797	0	177	0	0	0	0	0	0
4	214	220,011	0	177	0	0	0	0	0	0
5	474	220,485	1	178	0	0	0	0	0	0
6	103	220,588	0	178	0	0	0	0	0	0
7	611	221,199	0	178	0	0	0	0	2	2
8	396	221,595	0	178	0	0	0	0	0	2
9	431	222,026	1	179	0	0	0	0	0	2
10	73	222,099	0	179	0	0	0	0	2	4
11	138	222,237	0	179	0	0	0	0	1	5
12	2,295	224,532	1	180	0	0	0	0	0	5
13	1,081	225,613	0	180	0	0	0	0	0	5
14	347	225,960	0	180	0	0	0	0	0	5
15	800	226,760	3	183	0	0	0	0	0	5
16	200	226,960	0	183	0	0	0	0	0	5

Appendix G.14. Horse Marine daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jul 18	5	5	0	0	0	0	0	0	0	0
19	1	6	0	0	0	0	0	0	0	0
20	1	7	0	0	0	0	0	0	0	0
21	596	603	0	0	0	0	0	0	0	0
22	5	608	0	0	0	0	0	0	0	0
23	0	608	0	0	0	0	0	0	0	0
24	0	608	0	0	0	0	0	0	0	0
25	0	608	0	0	0	0	0	0	0	0
26	0	608	0	0	0	0	0	0	0	0
27	0	608	0	0	0	0	0	0	0	0
28	0	608	0	0	0	0	0	0	0	0
29	87	695	0	0	0	0	0	0	0	0
30	0	695	0	0	0	0	0	0	0	0
31	0	695	0	0	0	0	0	0	0	0
Aug 1	104	799	0	0	0	0	0	0	0	0
2	4	803	0	0	0	0	0	0	0	0
3	259	1,062	0	0	0	0	0	0	0	0
4	0	1,062	0	0	0	0	0	0	0	0
5	15	1,077	0	0	0	0	0	0	0	0
6	0	1,077	0	0	0	0	0	0	0	0
7	0	1,077	0	0	0	0	0	0	0	0
8	0	1,077	0	0	0	0	0	0	0	0
9	0	1,077	0	0	0	0	0	0	0	0
10	2	1,079	0	0	0	0	0	0	0	0
11	0	1,079	0	0	0	0	0	0	0	0
12	0	1,079	0	0	0	0	0	0	0	0
13	77	1,156	0	0	0	0	0	0	0	0
14	0	1,156	0	0	0	0	0	0	0	0
15	0	1,156	0	0	0	0	0	0	0	0
16	0	1,156	0	0	0	0	0	0	0	0
17	847	2,003	0	0	12	12	17	17	9	9
18	0	2,003	0	0	0	12	0	17	0	9
19	0	2,003	0	0	0	12	0	17	0	9
20	15	2,018	0	0	1	13	1	18	1	10
21	0	2,018	0	0	0	13	1	19	1	11
22	0	2,018	0	0	0	13	0	19	0	11
23	3	2,021	0	0	0	13	5	24	14	25
24	0	2,021	0	0	0	13	0	24	0	25
25	0	2,021	0	0	0	13	0	24	0	25
26	0	2,021	0	0	0	13	0	24	0	25
27	0	2,021	0	0	0	13	0	24	0	25
28	0	2,021	0	0	0	13	0	24	0	25
29	0	2,021	0	0	0	13	26	50	13	38
30	0	2,021	0	0	0	13	35	85	5	43
31	0	2,021	0	0	0	13	0	85	0	43
Sep 1	0	2,021	0	0	0	13	0	85	0	43
2	0	2,021	0	0	0	13	0	85	0	43
3	14	2,035	0	0	0	13	105	190	34	77
4	0	2,035	0	0	0	13	0	190	0	77
5	2	2,037	0	0	0	13	13	203	11	88
6	0	2,037	0	0	0	13	0	203	0	88
7	3	2,040	0	0	0	13	9	212	5	93
8	0	2,040	0	0	0	13	0	212	0	93
9	50	2,090	0	0	167	180	28	240	22	115
10	0	2,090	0	0	0	180	6	246	4	119
11	2	2,092	0	0	16	196	9	255	3	122
12	4	2,096	0	0	12	208	2	257	0	122
13	0	2,096	0	0	21	229	5	262	7	129
14	15	2,111	0	0	5	234	125	387	50	179

Appendix G.15. Upper Station daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jun 2	5	5	0	0	0	0	0	0	0	0
3	148	153	0	0	0	0	0	0	0	0
4	320	473	0	0	0	0	0	0	0	0
5	573	1,046	0	0	0	0	0	0	0	0
6	1,698	2,744	0	0	0	0	0	0	0	0
7	2,246	4,990	0	0	0	0	0	0	0	0
8	2,137	7,127	0	0	0	0	0	0	0	0
9	2,817	9,944	0	0	0	0	0	0	0	0
10	3,221	13,165	0	0	0	0	0	0	0	0
11	539	13,704	0	0	0	0	0	0	0	0
12	527	14,231	0	0	0	0	0	0	0	0
13	3,190	17,421	0	0	0	0	0	0	0	0
14	145	17,566	0	0	0	0	0	0	0	0
15	126	17,692	0	0	0	0	0	0	0	0
16	170	17,862	0	0	0	0	0	0	0	0
17	1,140	19,002	0	0	0	0	0	0	0	0
18	1,001	20,003	0	0	0	0	0	0	0	0
19	2,566	22,569	0	0	0	0	0	0	0	0
20	196	22,765	0	0	0	0	0	0	0	0
21	4,469	27,234	0	0	0	0	0	0	0	0
22	8,495	35,729	0	0	0	0	0	0	0	0
23	6,613	42,342	0	0	0	0	0	0	0	0
24	3,254	45,596	0	0	0	0	0	0	0	0
25	2,991	48,587	0	0	0	0	0	0	0	0
26	895	49,482	0	0	0	0	0	0	0	0
27	308	49,790	0	0	0	0	0	0	0	0
28	201	49,991	0	0	0	0	0	0	0	0
29	693	50,684	0	0	0	0	0	0	0	0
30	369	51,053	0	0	0	0	0	0	0	0
Jul 1	856	51,909	0	0	0	0	0	0	0	0
2	230	52,139	0	0	0	0	0	0	0	0
3	145	52,284	0	0	0	0	0	0	0	0
4	448	52,732	0	0	0	0	0	0	0	0
5	99	52,831	0	0	0	0	0	0	0	0
6	73	52,904	0	0	0	0	0	0	0	0
7	97	53,001	0	0	0	0	0	0	0	0
8	406	53,407	0	0	0	0	0	0	0	0
9	81	53,488	0	0	0	0	0	0	0	0
10	138	53,626	0	0	0	0	0	0	0	0
11	134	53,760	0	0	0	0	0	0	0	0
12	70	53,830	0	0	0	0	0	0	0	0
13	88	53,918	0	0	0	0	0	0	0	0
14	54	53,972	0	0	0	0	0	0	0	0
15	181	54,153	0	0	0	0	0	0	0	0
16	33	54,186	0	0	0	0	0	0	0	0
17	4	54,190	0	0	0	0	0	0	0	0
18	0	54,190	0	0	0	0	0	0	0	0
19	83	54,273	0	0	0	0	0	0	0	0
20	1,109	55,382	0	0	0	0	0	0	0	0
21	777	56,159	0	0	0	0	0	0	0	0
22	44	56,203	0	0	0	0	1	1	0	0
23	6	56,209	0	0	0	0	0	1	0	0
24	15	56,224	0	0	0	0	0	1	0	0
25	0	56,224	0	0	0	0	0	1	0	0
26	2,463	58,687	0	0	0	0	7	8	0	0
27	2,515	61,202	0	0	0	0	4	12	0	0
28	4,288	65,490	0	0	0	0	0	12	0	0
29	717	66,207	0	0	0	0	0	12	0	0
30	14	66,221	0	0	0	0	0	12	0	0
31	4,933	71,154	0	0	0	0	0	12	0	0
Aug 1	1,957	73,111	0	0	2	2	1	13	0	0
2	820	73,931	0	0	3	5	0	13	0	0
3	932	74,863	0	0	2	7	0	13	0	0
4	1,061	75,924	0	0	2	9	0	13	0	0
5	1,512	77,436	0	0	2	11	0	13	0	0
6	871	78,307	0	0	1	12	0	13	0	0
7	700	79,007	0	0	0	12	0	13	0	0
8	2,931	81,938	0	0	3	15	0	13	0	0
9	3,007	84,945	0	0	3	18	0	13	0	0
10	12,451	97,396	0	0	10	28	8	21	0	0
11	10,047	107,443	0	0	6	34	11	32	0	0

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Appendix G.15. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
12	1,943	109,386	0	0	1	35	1	33	0	0
13	1,553	110,939	0	0	5	40	0	33	0	0
14	9,390	120,329	0	0	79	119	2	35	0	0
15	14,188	134,517	0	0	199	318	19	54	0	0
16	25,801	160,318	2	2	127	445	216	270	0	0
17	5,446	165,764	0	2	50	495	12	282	0	0
18	3,202	168,966	0	2	24	519	5	287	0	0
19	1,615	170,581	0	2	29	548	7	294	0	0
20	626	171,207	0	2	10	558	5	299	0	0
21	1,434	172,641	0	2	11	569	5	304	0	0
22	4,599	177,240	0	2	153	722	10	314	0	0
23	10,026	187,266	0	2	167	889	45	359	0	0
24	10,845	198,111	0	2	79	968	92	451	0	0
25	8,354	206,465	0	2	125	1,093	76	527	0	0
26	22,426	228,891	0	2	153	1,246	57	584	0	0
27	4,236	233,127	0	2	62	1,308	24	608	0	0
28	2,688	235,815	0	2	72	1,380	23	631	0	0
29	799	236,614	0	2	45	1,425	11	642	0	0
30	1,404	238,018	0	2	114	1,539	25	667	0	0
31	1,039	239,057	0	2	32	1,571	48	715	0	0
Sep 1	1,564	240,621	0	2	51	1,622	82	797	0	0
2	1,562	242,183	0	2	1,027	2,649	31	828	0	0
3	30	242,213	1	3	52	2,701	24	852	1	1
4	245	242,458	8	11	143	2,844	16	868	0	1
5	61	242,519	0	11	39	2,883	5	873	0	1
6	962	243,481	8	19	189	3,072	17	890	0	1
7	1,364	244,845	9	28	109	3,181	10	900	1	2
8	5,127	249,972	0	28	1,244	4,425	26	926	0	2
9	1,431	251,403	0	28	620	5,045	10	936	0	2
10	503	251,906	0	28	113	5,158	6	942	0	2
11	979	252,885	0	28	805	5,963	6	948	0	2
12	541	253,426	0	28	524	6,487	0	948	0	2
13	1,020	254,446	0	28	980	7,467	0	948	0	2

Appendix G.16. Akalura daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jun	1	5	5	0	0	0	0	0	0	0
	2	21	26	0	0	0	0	0	0	0
	3	0	26	0	0	0	0	0	0	0
	4	0	26	0	0	0	0	0	0	0
	5	21	47	0	0	0	0	0	0	0
	6	301	348	0	0	0	0	0	0	0
	7	33	381	0	0	0	0	0	0	0
	8	328	709	0	0	0	0	0	0	0
	9	1	710	0	0	0	0	0	0	0
	10	154	864	0	0	0	0	0	0	0
	11	82	946	0	0	0	0	0	0	0
	12	0	946	0	0	0	0	0	0	0
	13	246	1,192	0	0	0	0	0	0	0
	14	1	1,193	0	0	0	0	0	0	0
	15	86	1,279	0	0	0	0	0	0	0
	16	49	1,328	0	0	0	0	0	0	0
	17	249	1,577	0	0	0	0	0	0	0
	18	0	1,577	0	0	0	0	0	0	0
	19	111	1,688	0	0	0	0	0	0	0
	20	224	1,912	0	0	0	0	0	0	0
	21	131	2,043	0	0	0	0	0	0	0
	22	164	2,207	0	0	0	0	0	0	0
	23	129	2,336	0	0	0	0	0	0	0
	24	211	2,547	0	0	0	0	0	0	0
	25	148	2,695	0	0	0	0	0	0	0
	26	66	2,761	0	0	0	0	0	0	0
	27	87	2,848	0	0	0	0	0	0	0
	28	35	2,883	0	0	0	0	0	0	0
	29	58	2,941	0	0	0	0	0	0	0
	30	46	2,987	0	0	0	0	0	0	0
Jul	1	53	3,040	0	0	0	0	0	0	0
	2	50	3,090	0	0	0	0	0	0	0
	3	2	3,092	0	0	0	0	0	0	0
	4	1	3,093	0	0	0	0	0	0	0
	5	7	3,100	0	0	0	0	0	0	0
	6	160	3,260	0	0	0	0	0	0	0
	7	0	3,260	0	0	0	0	0	0	0
	8	0	3,260	0	0	0	0	0	0	0
	9	0	3,260	0	0	0	0	0	0	0
	10	1	3,261	0	0	0	0	0	0	0
	11	23	3,284	0	0	0	0	0	0	0
	12	0	3,284	0	0	0	0	0	0	0
	13	0	3,284	0	0	0	0	0	0	0
	14	0	3,284	0	0	0	0	0	0	0
	15	1	3,285	0	0	0	0	0	0	0
	16	0	3,285	0	0	0	0	0	0	0
	17	35	3,320	0	0	0	0	0	0	0
	18	18	3,338	0	0	0	0	0	0	0
	19	0	3,338	0	0	0	0	0	0	0
	20	0	3,338	0	0	0	0	0	0	0
	21	0	3,338	0	0	0	0	0	0	0
	22	108	3,446	0	0	0	0	0	0	0
	23	2	3,448	0	0	0	0	0	0	0
	24	0	3,448	0	0	0	0	0	0	0
	25	0	3,448	0	0	0	0	0	0	0
	26	0	3,448	0	0	0	0	0	0	0
	27	0	3,448	0	0	0	0	0	0	0
	28	1	3,449	0	0	0	0	0	0	0
	29	2,482	5,931	0	0	0	0	0	0	0
	30	13	5,944	0	0	0	0	0	0	0
	31	347	6,291	0	0	0	0	0	0	0
Aug	1	840	7,131	0	0	0	0	0	0	0
	2	1	7,132	0	0	0	0	0	0	0
	3	3	7,135	0	0	0	0	0	0	0
	4	0	7,135	0	0	0	0	0	0	0
	5	20	7,155	0	0	0	0	0	0	0
	6	0	7,155	0	0	0	0	0	0	0
	7	0	7,155	0	0	0	0	0	0	0
	8	8	7,163	0	0	0	0	0	0	0
	9	0	7,163	0	0	0	0	0	0	0
	10	7	7,170	0	0	0	0	0	0	0

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Appendix G.16. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
11	32	7,202	0	0	0	0	0	0	0	0
12	0	7,202	0	0	0	0	0	0	0	0
13	316	7,518	0	0	0	0	0	0	0	0
14	124	7,642	0	0	0	0	0	0	0	0
15	78	7,720	0	0	0	0	0	0	0	0
16	11,050	18,770	0	0	26	26	0	0	0	0
17	329	19,099	0	0	0	26	0	0	0	0
18	480	19,579	0	0	1	27	0	0	0	0
19	1,802	21,381	0	0	0	27	0	0	0	0
20	80	21,461	0	0	0	27	0	0	0	0
21	333	21,794	0	0	0	27	0	0	0	0
22	194	21,988	0	0	1	28	0	0	0	0
23	127	22,115	0	0	2	30	0	0	0	0
24	169	22,284	0	0	3	33	0	0	0	0
25	1,225	23,509	0	0	14	47	0	0	0	0
26	3,788	27,297	1	1	57	104	0	0	0	0
27	5,612	32,909	0	1	54	158	0	0	0	0
28	102	33,011	0	1	3	161	0	0	0	0
29	519	33,530	0	1	31	192	0	0	0	0
30	69	33,599	0	1	10	202	0	0	0	0
31	2,193	35,792	0	1	37	239	0	0	0	0
Sep 1	137	35,929	0	1	1	240	0	0	0	0
2	928	36,857	0	1	112	352	0	0	0	0
3	3,711	40,568	0	1	135	487	0	0	0	0
4	336	40,904	0	1	80	567	0	0	0	0
5	124	41,028	0	1	63	630	0	0	0	0
6	110	41,138	0	1	136	766	0	0	0	0
7	54	41,192	0	1	13	779	0	0	0	0
8	2,872	44,064	0	1	679	1,458	0	0	0	0
9	2,110	46,174	0	1	379	1,837	0	0	0	0
10	9	46,183	0	1	53	1,890	0	0	0	0
11	376	46,559	0	1	474	2,364	0	0	0	0
12	385	46,944	0	1	955	3,319	0	0	0	0
13	73	47,017	0	1	300	3,619	0	0	0	0
14	100	47,117	0	1	300	3,919	0	0	0	0
15	0	47,117	0	1	0	3,919	0	0	0	0
16	0	47,117	0	1	0	3,919	0	0	0	0
17	0	47,117	0	1	0	3,919	0	0	0	0
18	13	47,130	0	1	46	3,965	0	0	0	0
19	33	47,163	0	1	183	4,148	0	0	0	0
20	18	47,181	0	1	84	4,232	0	0	0	0

Appendix G.17. Uganik daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jun 25	1,012	1,012	0	0	0	0	0	0	0	0
26	1,782	2,794	0	0	0	0	0	0	0	0
27	1,227	4,021	0	0	0	0	3	3	15	15
28	1,647	5,668	0	0	0	0	0	3	4	19
29	1,896	7,564	0	0	0	0	0	3	3	22
30	3,287	10,851	0	0	0	0	0	3	2	24
Jul 1	2,592	13,443	0	0	0	0	0	3	1	25
2	4,150	17,593	0	0	0	0	0	3	26	51
3	1,576	19,169	0	0	0	0	0	3	21	72
4	0	19,169	0	0	0	0	0	3	0	72
5	2,279	21,448	0	0	0	0	0	3	54	126
6	3,514	24,962	0	0	0	0	14	17	46	172
7	6,179	31,141	0	0	0	0	18	35	32	204
8	4,970	36,111	2	2	0	0	79	114	48	252
9	7,552	43,663	0	2	0	0	152	266	67	319
10	2,542	46,205	0	2	0	0	83	349	14	333
11	1,157	47,362	0	2	0	0	57	406	3	336
12	84	47,446	0	2	0	0	5	411	7	343
13	87	47,533	0	2	0	0	3	414	7	350
14	1,274	48,807	0	2	0	0	187	601	74	424
15	4,637	53,444	0	2	0	0	553	1,154	122	546
16	946	54,390	0	2	0	0	108	1,262	32	578
17	46	54,436	0	2	0	0	15	1,277	3	581
18	18	54,454	0	2	0	0	11	1,288	5	586
19	37	54,491	0	2	0	0	38	1,326	16	602
20	33	54,524	0	2	0	0	28	1,354	44	646
21	457	54,981	0	2	0	0	619	1,973	164	810
22	1,180	56,161	0	2	0	0	1,865	3,838	217	1,027
23	991	57,152	1	3	0	0	483	4,321	58	1,085
24	180	57,332	0	3	0	0	201	4,522	21	1,106
25	18	57,350	1	4	0	0	83	4,605	12	1,118
26	21	57,371	0	4	0	0	106	4,711	24	1,142
27	212	57,583	0	4	0	0	118	4,829	33	1,175
28	1,391	58,974	0	4	0	0	3,616	8,445	167	1,342
29	393	59,367	0	4	0	0	1,591	10,036	50	1,392
30	239	59,606	0	4	0	0	581	10,617	11	1,403
31	126	59,732	0	4	0	0	502	11,119	29	1,432
Aug 1	3,411	63,143	0	4	0	0	9,870	20,989	134	1,566
2	18	63,161	0	4	0	0	275	21,264	7	1,573
3	19	63,180	0	4	0	0	103	21,367	8	1,581
4	246	63,426	1	5	0	0	2,006	23,373	74	1,655
5	51	63,477	0	5	0	0	744	24,117	48	1,703
6	9	63,486	0	5	0	0	291	24,408	4	1,707
7	65	63,551	0	5	0	0	1,948	26,356	90	1,797
8	55	63,606	0	5	0	0	2,229	28,585	86	1,883
9	25	63,631	0	5	0	0	826	29,411	21	1,904
10	22	63,653	0	5	0	0	991	30,402	30	1,934
11	429	64,082	0	5	0	0	10,652	41,054	71	2,005
12	67	64,149	0	5	0	0	2,137	43,191	26	2,031
13	19	64,168	0	5	0	0	331	43,522	32	2,063
14	19	64,187	0	5	0	0	819	44,341	26	2,089
15	165	64,352	0	5	0	0	11,457	55,798	74	2,163
16	3	64,355	0	5	0	0	684	56,482	16	2,179
17	25	64,380	0	5	0	0	777	57,259	23	2,202
18	62	64,442	1	6	2	2	3,338	60,597	48	2,250
19	11	64,453	0	6	0	2	2,842	63,439	10	2,260
20	24	64,477	0	6	2	4	2,065	65,504	38	2,298
21	47	64,524	0	6	3	7	2,308	67,812	25	2,323
22	4	64,528	0	6	0	7	1,853	69,665	33	2,356
23	36	64,564	0	6	3	10	777	70,442	16	2,372
24	41	64,605	0	6	0	10	728	71,170	21	2,393
25	46	64,651	0	6	4	14	1,476	72,646	44	2,437
26	61	64,712	0	6	8	22	1,151	73,797	29	2,466
27	28	64,740	0	6	13	35	714	74,511	11	2,477
28	7	64,747	0	6	3	38	331	74,842	12	2,489
29	27	64,774	0	6	14	52	314	75,156	8	2,497
30	0	64,774	0	6	3	55	171	75,327	4	2,501
31	23	64,797	0	6	2	57	197	75,524	2	2,503
Sep 1	5	64,802	0	6	1	58	140	75,664	12	2,515
2	19	64,821	0	6	14	72	218	75,882	7	2,522
3	21	64,842	0	6	8	80	379	76,261	4	2,526

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Appendix G.17. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
4	26	64,868	0	6	42	122	113	76,374	1	2,527
5	26	64,894	0	6	54	176	279	76,653	3	2,530
6	3	64,897	0	6	3	179	25	76,678	2	2,532
7	5	64,902	0	6	2	181	29	76,707	3	2,535
8	26	64,928	0	6	28	209	103	76,810	2	2,537
9	6	64,934	0	6	24	233	40	76,850	0	2,537
10	1	64,935	0	6	27	260	11	76,861	0	2,537
11	7	64,942	0	6	8	268	14	76,875	0	2,537
12	230	65,172	0	6	2,545	2,813	90	76,965	2	2,539
13	0	65,172	0	6	0	2,813	0	76,965	0	2,539
14	23	65,195	0	6	49	2,862	15	76,980	4	2,543
15	0	65,195	0	6	20	2,882	0	76,980	0	2,543
16	22	65,217	0	6	15	2,897	7	76,987	4	2,547
17	300	65,517	0	6	1,207	4,104	27	77,014	10	2,557
18	1	65,518	0	6	3	4,107	0	77,014	1	2,558
19	1	65,519	0	6	220	4,327	0	77,014	0	2,558
20	32	65,551	0	6	314	4,641	0	77,014	2	2,560
21	0	65,551	0	6	200	4,841	0	77,014	0	2,560
22	0	65,551	0	6	100	4,941	0	77,014	0	2,560
23	0	65,551	0	6	6	4,947	0	77,014	0	2,560
24	0	65,551	0	6	28	4,975	0	77,014	0	2,560
25	0	65,551	0	6	2	4,977	1	77,015	0	2,560
26	0	65,551	0	6	2	4,979	0	77,015	0	2,560
27	0	65,551	0	6	100	5,079	0	77,015	0	2,560
28	0	65,551	0	6	50	5,129	0	77,015	0	2,560
29	0	65,551	0	6	50	5,179	0	77,015	0	2,560
30	0	65,551	0	6	10	5,189	0	77,015	0	2,560
Oct 1	0	65,551	0	6	10	5,199	0	77,015	0	2,560
2	0	65,551	0	6	10	5,209	0	77,015	0	2,560
3	0	65,551	0	6	10	5,219	0	77,015	0	2,560
4	0	65,551	0	6	2	5,221	0	77,015	0	2,560
5	0	65,551	0	6	0	5,221	0	77,015	0	2,560
6	0	65,551	0	6	4	5,225	0	77,015	0	2,560
7	0	65,551	0	6	0	5,225	0	77,015	0	2,560
8	0	65,551	0	6	17	5,242	0	77,015	0	2,560
9	0	65,551	0	6	3	5,245	0	77,015	0	2,560
10	0	65,551	0	6	15	5,260	0	77,015	0	2,560
11	0	65,551	0	6	1	5,261	0	77,015	0	2,560

Appendix G.18. Sallery daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jun 10	1	1	0	0	0	0	0	0	0	0
11	2	3	0	0	0	0	0	0	0	0
12	32	35	0	0	0	0	0	0	0	0
13	11	46	0	0	0	0	0	0	0	0
14	3	49	0	0	0	0	0	0	0	0
15	2	51	0	0	0	0	0	0	0	0
16	0	51	0	0	0	0	0	0	0	0
17	14	65	0	0	0	0	0	0	0	0
18	20	85	0	0	0	0	0	0	0	0
19	15	100	0	0	0	0	0	0	0	0
20	87	187	0	0	0	0	0	0	0	0
21	31	218	0	0	0	0	0	0	0	0
22	47	265	0	0	0	0	0	0	0	0
23	30	295	0	0	0	0	0	0	0	0
24	151	446	0	0	0	0	0	0	0	0
25	12	458	0	0	0	0	0	0	0	0
26	60	518	0	0	0	0	0	0	0	0
27	856	1,374	0	0	0	0	0	0	0	0
28	187	1,561	0	0	0	0	0	0	0	0
29	433	1,994	0	0	0	0	0	0	0	0
30	341	2,335	0	0	0	0	0	0	0	0
Jul 1	1,082	3,417	0	0	0	0	0	0	0	0
2	318	3,735	0	0	0	0	0	0	0	0
3	96	3,831	0	0	0	0	0	0	0	0
4	586	4,417	0	0	0	0	0	0	1	1
5	514	4,931	0	0	0	0	0	0	0	1
6	886	5,817	0	0	0	0	0	0	0	1
7	663	6,480	0	0	0	0	0	0	0	1
8	354	6,834	0	0	0	0	0	0	0	1
9	2,235	9,069	0	0	0	0	0	0	0	1
10	271	9,340	0	0	0	0	0	0	0	1
11	530	9,870	0	0	0	0	3	3	0	1
12	293	10,163	0	0	0	0	1	4	0	1
13	705	10,868	0	0	0	0	0	4	0	1
14	532	11,400	0	0	0	0	3	7	0	1
15	982	12,382	0	0	0	0	8	15	0	1
16	112	12,494	0	0	0	0	0	15	0	1
17	155	12,649	0	0	0	0	0	15	0	1
18	178	12,827	0	0	0	0	0	15	0	1
19	569	13,396	0	0	0	0	2	17	1	2
20	2,543	15,939	0	0	0	0	5	22	0	2
21	2,356	18,295	1	1	0	0	10	32	0	2
22	929	19,224	0	1	0	0	10	42	0	2
23	142	19,366	0	1	0	0	5	47	0	2
24	1,209	20,575	0	1	0	0	12	59	1	3
25	353	20,928	0	1	0	0	4	63	0	3
26	777	21,705	0	1	0	0	10	73	0	3
27	415	22,120	0	1	0	0	2	75	2	5
28	1,078	23,198	0	1	0	0	23	98	1	6
29	99	23,297	0	1	0	0	2	100	0	6
30	298	23,595	0	1	0	0	4	104	0	6
31	322	23,917	0	1	0	0	0	104	0	6
Aug 1	3,950	27,867	0	1	0	0	63	167	0	6
2	1,315	29,182	0	1	0	0	41	208	0	6
3	0	29,182	0	1	0	0	0	208	0	6
4	0	29,182	0	1	0	0	0	208	0	6
5	0	29,182	0	1	0	0	0	208	0	6
6	0	29,182	0	1	0	0	0	208	0	6
7	0	29,182	0	1	0	0	0	208	0	6
8	5	29,187	0	1	0	0	0	208	0	6
9	0	29,187	0	1	0	0	0	208	0	6
10	4	29,191	0	1	0	0	1	209	0	6
11	0	29,191	0	1	0	0	0	209	0	6
12	0	29,191	0	1	0	0	0	209	0	6
13	52	29,243	0	1	0	0	38	247	1	7
14	56	29,299	1	2	0	0	20	267	0	7
15	7	29,306	0	2	0	0	0	267	0	7
16	15	29,321	0	2	0	0	5	272	0	7
17	24	29,345	1	3	0	0	4	276	1	8
18	29	29,374	0	3	0	0	4	280	1	9
19	8	29,382	0	3	0	0	1	281	0	9

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Appendix G.18. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
20	24	29,406	0	3	0	0	8	289	0	9
21	9	29,415	0	3	0	0	2	291	0	9
22	20	29,435	1	4	0	0	12	303	0	9
23	0	29,435	0	4	0	0	0	303	0	9
24	2	29,437	0	4	0	0	1	304	0	9
25	0	29,437	0	4	6	6	2	306	0	9
26	1	29,438	0	4	5	11	2	308	0	9
27	0	29,438	0	4	11	22	1	309	0	9
28	5	29,443	0	4	2	24	1	310	0	9
29	0	29,443	0	4	28	52	0	310	0	9
30	1	29,444	0	4	34	86	1	311	0	9
31	1	29,445	0	4	24	110	2	313	0	9
Sep 1	7	29,452	0	4	21	131	0	313	0	9
2	4	29,456	0	4	30	161	0	313	0	9
3	14	29,470	0	4	31	192	0	313	0	9
4	12	29,482	0	4	68	260	0	313	0	9
5	4	29,486	0	4	66	326	0	313	0	9
6	11	29,497	0	4	87	413	0	313	0	9
7	3	29,500	0	4	9	422	0	313	0	9
8	89	29,589	0	4	131	553	0	313	0	9
9	22	29,611	0	4	74	627	0	313	0	9
10	31	29,642	0	4	181	808	0	313	0	9
11	8	29,650	0	4	94	902	0	313	0	9
12	14	29,664	0	4	86	988	0	313	0	9
13	7	29,671	0	4	199	1,187	0	313	0	9
14	65	29,736	0	4	836	2,023	0	313	0	9
15	17	29,753	0	4	304	2,327	0	313	0	9
16	14	29,767	0	4	160	2,487	0	313	0	9
17	0	29,767	0	4	360	2,847	0	313	0	9

Appendix G.19. Buskin daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
May 25	1	1	0	0	0	0	0	0	0	0
26	0	1	0	0	0	0	0	0	0	0
27	0	1	0	0	0	0	0	0	0	0
28	15	16	0	0	0	0	0	0	0	0
29	0	16	0	0	0	0	0	0	0	0
30	0	16	0	0	0	0	0	0	0	0
31	1	17	0	0	0	0	0	0	0	0
Jun 1	0	17	0	0	0	0	0	0	0	0
2	0	17	0	0	0	0	0	0	0	0
3	11	28	0	0	0	0	0	0	0	0
4	707	735	0	0	0	0	0	0	0	0
5	248	983	0	0	0	0	0	0	0	0
6	935	1,918	0	0	0	0	0	0	0	0
7	131	2,049	0	0	0	0	0	0	0	0
8	443	2,492	0	0	0	0	0	0	0	0
9	337	2,829	0	0	0	0	0	0	0	0
10	108	2,937	0	0	0	0	0	0	0	0
11	241	3,178	0	0	0	0	0	0	0	0
12	349	3,527	0	0	0	0	0	0	0	0
13	472	3,999	0	0	0	0	0	0	0	0
14	336	4,335	0	0	0	0	0	0	0	0
15	296	4,631	0	0	0	0	0	0	0	0
16	229	4,860	0	0	0	0	0	0	0	0
17	280	5,140	0	0	0	0	0	0	0	0
18	112	5,252	0	0	0	0	0	0	0	0
19	252	5,504	0	0	0	0	0	0	0	0
20	144	5,648	0	0	0	0	0	0	0	0
21	259	5,907	0	0	0	0	0	0	0	0
22	149	6,056	0	0	0	0	0	0	0	0
23	236	6,292	0	0	0	0	0	0	0	0
24	152	6,444	0	0	0	0	0	0	0	0
25	408	6,852	0	0	0	0	0	0	0	0
26	158	7,010	0	0	0	0	0	0	0	0
27	40	7,050	0	0	0	0	0	0	0	0
28	72	7,122	0	0	0	0	0	0	0	0
29	3	7,125	0	0	0	0	0	0	0	0
30	434	7,559	0	0	0	0	0	0	0	0
Jul 1	62	7,621	0	0	0	0	0	0	0	0
2	162	7,783	0	0	0	0	0	0	0	0
3	110	7,893	0	0	0	0	0	0	0	0
4	16	7,909	0	0	0	0	0	0	0	0
5	0	7,909	0	0	0	0	0	0	0	0
6	4	7,913	0	0	0	0	0	0	0	0
7	20	7,933	0	0	0	0	0	0	0	0
8	30	7,963	0	0	0	0	0	0	1	1
9	238	8,201	0	0	0	0	0	0	0	1
10	4	8,205	0	0	0	0	0	0	0	1
11	0	8,205	0	0	0	0	0	0	0	1
12	0	8,205	0	0	0	0	0	0	0	1
13	1	8,206	0	0	0	0	0	0	0	1
14	135	8,341	0	0	0	0	1	1	0	1
15	40	8,381	0	0	0	0	0	1	0	1
16	32	8,413	0	0	0	0	0	1	0	1
17	240	8,653	0	0	0	0	0	1	0	1
18	0	8,653	0	0	0	0	1	2	0	1
19	15	8,668	0	0	0	0	4	6	0	1
20	50	8,718	0	0	0	0	38	44	0	1
21	85	8,803	0	0	0	0	492	536	0	1
22	96	8,899	0	0	0	0	69	605	0	1
23	18	8,917	0	0	0	0	21	626	0	1
24	18	8,935	0	0	0	0	52	678	0	1
25	19	8,954	0	0	0	0	65	743	0	1
26	3	8,957	0	0	0	0	8	751	0	1
27	51	9,008	0	0	0	0	145	896	0	1
28	291	9,299	0	0	1	1	937	1,833	0	1
29	87	9,386	0	0	0	1	758	2,591	0	1
30	38	9,424	0	0	0	1	729	3,320	0	1
31	51	9,475	0	0	0	1	297	3,617	0	1
Aug 1	280	9,755	0	0	0	1	731	4,348	0	1
2	57	9,812	0	0	0	1	1,422	5,770	0	1
3	161	9,973	0	0	0	1	1,422	7,192	0	1

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Appendix G.19. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
4	60	10,033	0	0	0	1	1,422	8,614	0	1
5	49	10,082	0	0	0	1	1,422	10,036	0	1
6	55	10,137	0	0	0	1	1,422	11,458	0	1
7	59	10,196	0	0	0	1	1,422	12,880	0	1
8	53	10,249	0	0	0	1	1,422	14,302	0	1
9	41	10,290	0	0	0	1	1,422	15,724	0	1
10	36	10,326	0	0	0	1	1,422	17,146	0	1
11	55	10,381	0	0	0	1	1,422	18,568	0	1
12	33	10,414	0	0	0	1	1,422	19,990	0	1
13	19	10,433	0	0	0	1	1,422	21,412	0	1
14	19	10,452	0	0	0	1	1,422	22,834	0	1
15	16	10,468	0	0	1	2	1,422	24,256	0	1
16	11	10,479	0	0	16	18	1,652	25,908	3	4
17	3	10,482	0	0	24	42	551	26,459	0	4
18	0	10,482	0	0	14	56	1,151	27,610	0	4
19	3	10,485	0	0	45	101	1,102	28,712	1	5
20	1	10,486	0	0	60	161	482	29,194	1	6
21	0	10,486	0	0	34	195	194	29,388	0	6
22	0	10,486	0	0	36	231	518	29,906	0	6
23	1	10,487	0	0	28	259	190	30,096	0	6
24	0	10,487	0	0	21	280	326	30,422	0	6
25	0	10,487	0	0	60	340	1,001	31,423	0	6
26	0	10,487	0	0	16	356	538	31,961	0	6
27	0	10,487	0	0	24	380	1,098	33,059	0	6
28	0	10,487	0	0	22	402	842	33,901	2	8
29	0	10,487	0	0	26	428	791	34,692	0	8
30	0	10,487	0	0	8	436	141	34,833	0	8
31	7	10,494	0	0	8	444	376	35,209	0	8
Sep 1	2	10,496	0	0	12	456	367	35,576	0	8
2	1	10,497	0	0	7	463	521	36,097	0	8
3	6	10,503	0	0	93	556	2,653	38,750	8	16
4	8	10,511	0	0	297	853	638	39,388	0	16
5	4	10,515	0	0	90	943	377	39,765	2	18
6	3	10,518	0	0	57	1,000	226	39,991	0	18
7	1	10,519	0	0	42	1,042	147	40,138	0	18
8	4	10,523	0	0	96	1,138	832	40,970	0	18
9	1	10,524	0	0	104	1,242	441	41,411	0	18
10	0	10,524	0	0	7	1,249	35	41,446	0	18
11	1	10,525	0	0	52	1,301	599	42,045	0	18
12	1	10,526	0	0	442	1,743	360	42,405	0	18
13	0	10,526	0	0	143	1,886	239	42,644	0	18
14	1	10,527	0	0	336	2,222	124	42,768	0	18
15	0	10,527	0	0	343	2,565	84	42,852	0	18
16	0	10,527	0	0	1,000	3,565	0	42,852	0	18
17	0	10,527	0	0	500	4,065	0	42,852	0	18
18	0	10,527	0	0	500	4,565	0	42,852	0	18
19	0	10,527	0	0	400	4,965	0	42,852	0	18
20	0	10,527	0	0	200	5,165	0	42,852	0	18
21	0	10,527	0	0	200	5,365	0	42,852	0	18
22	0	10,527	0	0	150	5,515	0	42,852	0	18
23	1	10,528	0	0	93	5,608	11	42,863	0	18
24	0	10,528	0	0	222	5,830	15	42,878	0	18
25	0	10,528	0	0	129	5,959	7	42,885	0	18
26	0	10,528	0	0	263	6,222	4	42,889	0	18
27	0	10,528	0	0	0	6,222	9,818	52,707	0	18

Appendix G.20. Litnik daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
May 27	38	38	0	0	0	0	0	0	0	0
28	88	126	0	0	0	0	0	0	0	0
29	317	443	0	0	0	0	0	0	0	0
30	460	903	0	0	0	0	0	0	0	0
31	520	1,423	0	0	0	0	0	0	0	0
Jun 1	363	1,786	0	0	0	0	0	0	0	0
2	909	2,695	0	0	0	0	0	0	0	0
3	1,230	3,925	0	0	0	0	0	0	0	0
4	2,492	6,417	0	0	0	0	0	0	0	0
5	2,387	8,804	0	0	0	0	0	0	0	0
6	1,033	9,837	0	0	0	0	0	0	0	0
7	4,383	14,220	0	0	0	0	0	0	0	0
8	983	15,203	0	0	0	0	0	0	0	0
9	2,568	17,771	0	0	0	0	0	0	0	0
10	3,345	21,116	0	0	0	0	0	0	0	0
11	3,682	24,798	0	0	0	0	0	0	0	0
12	1,257	26,055	0	0	0	0	0	0	0	0
13	10,303	36,358	0	0	0	0	0	0	0	0
14	6,162	42,520	0	0	0	0	0	0	0	0
15	3,342	45,862	0	0	0	0	0	0	0	0
16	613	46,475	0	0	0	0	0	0	0	0
17	492	46,967	0	0	0	0	0	0	0	0
18	1,948	48,915	0	0	0	0	0	0	0	0
19	3,344	52,259	0	0	0	0	0	0	0	0
20	5,235	57,494	0	0	0	0	0	0	0	0
21	3,185	60,679	0	0	0	0	0	0	0	0
22	1,017	61,696	0	0	0	0	0	0	0	0
23	343	62,039	0	0	0	0	0	0	0	0
24	843	62,882	0	0	0	0	0	0	0	0
25	936	63,818	0	0	0	0	0	0	0	0
26	1,453	65,271	0	0	0	0	0	0	0	0
27	295	65,566	0	0	0	0	0	0	0	0
28	641	66,207	0	0	0	0	0	0	0	0
29	242	66,449	0	0	0	0	0	0	0	0
30	224	66,673	0	0	0	0	0	0	0	0
Jul 1	535	67,208	0	0	0	0	0	0	0	0
2	1,729	68,937	0	0	0	0	0	0	0	0
3	391	69,328	0	0	0	0	0	0	0	0
4	671	69,999	0	0	0	0	0	0	0	0
5	74	70,073	0	0	0	0	0	0	0	0
6	1,185	71,258	0	0	0	0	0	0	0	0
7	805	72,063	0	0	0	0	0	0	0	0
8	529	72,592	0	0	0	0	0	0	0	0
9	2,374	74,966	0	0	0	0	0	0	0	0
10	685	75,651	0	0	0	0	1	1	0	0
11	513	76,164	0	0	0	0	0	1	0	0
12	343	76,507	0	0	0	0	0	1	0	0
13	179	76,686	0	0	0	0	0	1	0	0
14	2,010	78,696	0	0	0	0	2	3	0	0
15	72	78,768	0	0	0	0	0	3	0	0
16	717	79,485	0	0	0	0	0	3	0	0
17	0	79,485	0	0	0	0	0	3	0	0
18	116	79,601	0	0	0	0	2	5	0	0
19	360	79,961	0	0	0	0	0	5	0	0
20	320	80,281	0	0	0	0	1	6	0	0
21	145	80,426	0	0	0	0	0	6	0	0
22	2,058	82,484	0	0	0	0	16	22	0	0
23	63	82,547	0	0	0	0	5	27	0	0
24	142	82,689	0	0	0	0	0	27	0	0
25	145	82,834	0	0	0	0	0	27	0	0
26	213	83,047	0	0	0	0	1	28	0	0
27	2,086	85,133	0	0	3	3	63	91	0	0
28	1,842	86,975	0	0	4	7	370	461	0	0
29	568	87,543	0	0	0	7	88	549	0	0
30	154	87,697	0	0	0	7	13	562	0	0
31	295	87,992	0	0	2	9	93	655	0	0
Aug 1	806	88,798	0	0	6	15	689	1,344	0	0
2	216	89,014	0	0	4	19	150	1,494	0	0
3	189	89,203	0	0	4	23	323	1,817	0	0
4	168	89,371	0	0	16	39	313	2,130	0	0
5	96	89,467	0	0	9	48	125	2,255	0	0

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Appendix G.20. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
6	41	89,508	0	0	20	68	123	2,378	0	0
7	90	89,598	0	0	122	190	1,124	3,502	0	0
8	102	89,700	0	0	153	343	1,995	5,497	0	0
9	55	89,755	0	0	112	455	1,472	6,969	0	0
10	39	89,794	0	0	17	472	295	7,264	0	0
11	168	89,962	0	0	390	862	1,635	8,899	0	0
12	41	90,003	0	0	175	1,037	654	9,553	0	0
13	6	90,009	0	0	120	1,157	770	10,323	0	0
14	54	90,063	0	0	162	1,319	935	11,258	0	0
15	66	90,129	0	0	159	1,478	1,181	12,439	0	0
16	71	90,200	0	0	287	1,765	3,287	15,726	0	0
17	31	90,231	0	0	590	2,355	2,966	18,692	0	0
18	28	90,259	0	0	128	2,483	304	18,996	0	0
19	32	90,291	0	0	429	2,912	1,447	20,443	0	0
20	32	90,323	0	0	661	3,573	1,216	21,659	0	0
21	31	90,354	0	0	497	4,070	500	22,159	0	0
22	12	90,366	0	0	261	4,331	246	22,405	0	0
23	18	90,384	0	0	233	4,564	255	22,660	0	0
24	20	90,404	0	0	372	4,936	317	22,977	0	0
25	17	90,421	0	0	380	5,316	182	23,159	0	0
26	9	90,430	0	0	59	5,375	60	23,219	0	0
27	23	90,453	0	0	74	5,449	102	23,321	0	0
28	5	90,458	0	0	38	5,487	68	23,389	0	0
29	2	90,460	0	0	4	5,491	10	23,399	0	0
30	0	90,460	0	0	6	5,497	14	23,413	0	0
31	1	90,461	0	0	19	5,516	92	23,505	0	0
Sep 1	8	90,469	0	0	40	5,556	155	23,660	0	0
2	5	90,474	0	0	75	5,631	99	23,759	0	0
3	20	90,494	0	0	486	6,117	671	24,430	0	0
4	6	90,500	0	0	397	6,514	267	24,697	0	0
5	3	90,503	0	0	20	6,534	141	24,838	0	0
6	2	90,505	0	0	10	6,544	96	24,934	0	0
7	4	90,509	0	0	52	6,596	374	25,308	0	0
8	6	90,515	0	0	29	6,625	582	25,890	0	0
9	3	90,518	0	0	28	6,653	366	26,256	0	0
10	2	90,520	0	0	0	6,653	76	26,332	0	0
11	2	90,522	0	0	12	6,665	395	26,727	0	0
12	5	90,527	0	0	735	7,400	531	27,258	0	0
13	0	90,527	0	0	6	7,406	55	27,313	0	0
14	113	90,640	0	0	3,646	11,052	377	27,690	0	0
15	0	90,640	0	0	9	11,061	6	27,696	0	0
16	26	90,666	0	0	1,069	12,130	112	27,808	0	0
17	0	90,666	0	0	1,250	13,380	0	27,808	0	0

Appendix G.21. Pauls Bay daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jun 5	40	40	0	0	0	0	0	0	0	0
6	66	106	0	0	0	0	0	0	0	0
7	37	143	0	0	0	0	0	0	0	0
8	695	838	0	0	0	0	0	0	0	0
9	359	1,197	0	0	0	0	0	0	0	0
10	3	1,200	0	0	0	0	0	0	0	0
11	7	1,207	0	0	0	0	0	0	0	0
12	7	1,214	0	0	0	0	0	0	0	0
13	29	1,243	0	0	0	0	0	0	0	0
14	21	1,264	0	0	0	0	0	0	0	0
15	1	1,265	0	0	0	0	0	0	0	0
16	67	1,332	0	0	0	0	0	0	0	0
17	36	1,368	0	0	0	0	0	0	0	0
18	29	1,397	0	0	0	0	0	0	0	0
19	38	1,435	0	0	0	0	0	0	0	0
20	792	2,227	0	0	0	0	0	0	0	0
21	68	2,295	0	0	0	0	0	0	0	0
22	546	2,841	0	0	0	0	0	0	0	0
23	378	3,219	0	0	0	0	0	0	0	0
24	4,449	7,668	0	0	0	0	0	0	0	0
25	633	8,301	0	0	0	0	0	0	0	0
26	530	8,831	0	0	0	0	0	0	0	0
27	25	8,856	0	0	0	0	0	0	0	0
28	101	8,957	0	0	0	0	0	0	0	0
29	317	9,274	0	0	0	0	0	0	0	0
30	0	9,274	0	0	0	0	0	0	0	0
Jul 1	2	9,276	0	0	0	0	0	0	0	0
2	0	9,276	0	0	0	0	0	0	0	0
3	12	9,288	0	0	0	0	0	0	0	0
4	391	9,679	0	0	0	0	0	0	0	0
5	705	10,384	0	0	0	0	0	0	0	0
6	266	10,650	0	0	0	0	0	0	0	0
7	0	10,650	0	0	0	0	0	0	0	0
8	153	10,803	0	0	0	0	0	0	0	0
9	205	11,008	0	0	0	0	0	0	0	0
10	754	11,762	0	0	0	0	0	0	0	0
11	82	11,844	0	0	0	0	0	0	0	0
12	17	11,861	0	0	0	0	0	0	0	0
13	83	11,944	0	0	0	0	0	0	0	0
14	847	12,791	0	0	0	0	0	0	0	0
15	147	12,938	0	0	0	0	0	0	0	0
16	128	13,066	0	0	0	0	0	0	0	0
17	340	13,406	0	0	0	0	1	1	0	0
18	189	13,595	0	0	0	0	0	1	0	0
19	4	13,599	0	0	0	0	0	1	0	0
20	469	14,068	0	0	0	0	0	1	0	0
21	137	14,205	0	0	0	0	0	1	0	0
22	44	14,249	0	0	0	0	0	1	0	0
23	4	14,253	0	0	0	0	0	1	0	0
24	0	14,253	0	0	0	0	0	1	0	0
25	5	14,258	0	0	0	0	0	1	0	0
26	0	14,258	0	0	0	0	0	1	0	0
27	20	14,278	0	0	0	0	0	1	0	0
28	12	14,290	0	0	0	0	0	1	0	0
29	0	14,290	0	0	0	0	0	1	0	0
30	15	14,305	0	0	0	0	1	2	0	0
31	27	14,332	0	0	1	1	1	3	0	0
Aug 1	49	14,381	0	0	60	61	12	15	0	0
2	37	14,418	0	0	57	118	30	45	0	0
3	56	14,474	0	0	112	230	25	70	0	0
4	6	14,480	0	0	38	268	7	77	0	0
5	3	14,483	0	0	11	279	2	79	0	0
6	0	14,483	0	0	1	280	0	79	0	0
7	4	14,487	0	0	11	291	0	79	0	0
8	8	14,495	0	0	31	322	8	87	0	0
9	5	14,500	0	0	109	431	15	102	0	0
10	2	14,502	0	0	45	476	17	119	0	0
11	1	14,503	0	0	99	575	15	134	0	0
12	1	14,504	0	0	225	800	42	176	0	0
13	0	14,504	0	0	126	926	17	193	0	0
14	0	14,504	0	0	59	985	11	204	0	0

-Continued-

Appendix G.21. (page 2 of 2)

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
15	1	14,505	0	0	72	1,057	12	216	0	0
16	0	14,505	0	0	320	1,377	28	244	0	0
17	2	14,507	0	0	145	1,522	87	331	0	0
18	0	14,507	0	0	30	1,552	35	366	0	0
19	0	14,507	0	0	124	1,676	42	408	0	0
20	0	14,507	0	0	45	1,721	26	434	0	0
21	0	14,507	0	0	74	1,795	64	498	0	0
22	0	14,507	0	0	40	1,835	56	554	0	0
23	2	14,509	0	0	372	2,207	180	734	0	0
24	0	14,509	0	0	20	2,227	5	739	0	0
25	0	14,509	0	0	41	2,268	0	739	0	0
26	0	14,509	0	0	1,064	3,332	20	759	0	0
27	0	14,509	0	0	25	3,357	0	759	0	0
28	0	14,509	0	0	50	3,407	7	766	0	0
29	0	14,509	0	0	62	3,469	2	768	0	0
30	0	14,509	0	0	37	3,506	0	768	0	0
31	0	14,509	0	0	5	3,511	0	768	0	0
Sep 1	0	14,509	0	0	2	3,513	0	768	0	0
2	0	14,509	0	0	3	3,516	0	768	0	0
3	1	14,510	0	0	78	3,594	6	774	0	0
4	0	14,510	0	0	4	3,598	1	775	0	0
5	0	14,510	0	0	12	3,610	0	775	0	0
6	0	14,510	0	0	52	3,662	0	775	0	0
7	0	14,510	0	0	6	3,668	0	775	0	0

Appendix G.22. Perenosa daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Jul 20	119	119	0	0	0	0	1	1	0	0
21	16	135	0	0	0	0	1	2	0	0
22	0	135	0	0	0	0	0	2	0	0
23	0	135	0	0	0	0	0	2	0	0
24	0	135	0	0	0	0	2	4	0	0
25	0	135	0	0	0	0	0	4	0	0
26	0	135	0	0	0	0	0	4	0	0
27	0	135	0	0	0	0	1	5	0	0
28	88	223	0	0	0	0	1	6	0	0
29	2	225	0	0	0	0	0	6	0	0
30	0	225	0	0	0	0	0	6	0	0
31	2	227	0	0	0	0	2	8	0	0
Aug 1	37	264	0	0	4	4	21	29	0	0
2	310	574	0	0	100	104	428	457	0	0
3	309	883	0	0	100	204	428	885	0	0
4	309	1,192	0	0	100	304	428	1,313	0	0
5	309	1,501	0	0	100	404	427	1,740	0	0
6	309	1,810	0	0	100	504	427	2,167	0	0
7	309	2,119	0	0	100	604	427	2,594	0	0
8	309	2,428	0	0	100	704	427	3,021	0	0
9	309	2,737	0	0	100	804	427	3,448	0	0
10	309	3,046	0	0	100	904	427	3,875	0	0
11	309	3,355	0	0	100	1,004	427	4,302	0	0
12	309	3,664	0	0	100	1,104	427	4,729	0	0
13	0	3,664	0	0	0	1,104	0	4,729	0	0
14	0	3,664	0	0	0	1,104	0	4,729	0	0
15	0	3,664	0	0	0	1,104	0	4,729	0	0
16	0	3,664	0	0	26	1,130	247	4,976	0	0
17	0	3,664	0	0	0	1,130	0	4,976	0	0
18	0	3,664	0	0	200	1,330	400	5,376	0	0
19	0	3,664	0	0	46	1,376	120	5,496	0	0
20	0	3,664	0	0	0	1,376	0	5,496	0	0
21	0	3,664	0	0	0	1,376	0	5,496	0	0
22	2	3,666	0	0	20	1,396	56	5,552	0	0
23	0	3,666	0	0	0	1,396	0	5,552	0	0
24	0	3,666	0	0	4	1,400	8	5,560	0	0
25	0	3,666	0	0	0	1,400	0	5,560	0	0
26	0	3,666	0	0	0	1,400	0	5,560	0	0
27	0	3,666	0	0	30	1,430	68	5,628	0	0
28	0	3,666	0	0	0	1,430	0	5,628	0	0
29	0	3,666	0	0	2	1,432	0	5,628	0	0
30	0	3,666	0	0	0	1,432	0	5,628	0	0
31	0	3,666	0	0	0	1,432	0	5,628	0	0
Sep 1	0	3,666	0	0	0	1,432	38	5,666	0	0
2	0	3,666	0	0	0	1,432	8	5,674	0	0
3	0	3,666	0	0	0	1,432	0	5,674	0	0
4	2	3,668	0	0	765	2,197	280	5,954	2	2
5	2	3,670	0	0	448	2,645	379	6,333	1	3
6	0	3,670	0	0	132	2,777	214	6,547	0	3
7	0	3,670	0	0	0	2,777	0	6,547	0	3
8	0	3,670	0	0	1,500	4,277	1,000	7,547	0	3
9	0	3,670	0	0	0	4,277	4,000	11,547	0	3
10	0	3,670	0	0	0	4,277	0	11,547	0	3
11	0	3,670	0	0	0	4,277	0	11,547	0	3
12	0	3,670	0	0	0	4,277	0	11,547	0	3
13	0	3,670	0	0	0	4,277	0	11,547	0	3
14	0	3,670	0	0	0	4,277	0	11,547	0	3
15	0	3,670	0	0	0	4,277	0	11,547	0	3
16	0	3,670	0	0	0	4,277	0	11,547	0	3
17	0	3,670	0	0	0	4,277	0	11,547	0	3
18	0	3,670	0	0	0	4,277	0	11,547	0	3
19	0	3,670	0	0	0	4,277	0	11,547	0	3
20	0	3,670	0	0	0	4,277	0	11,547	0	3
21	0	3,670	0	0	0	4,277	0	11,547	0	3
22	0	3,670	0	0	0	4,277	0	11,547	0	3
23	0	3,670	0	0	0	4,277	0	11,547	0	3
24	0	3,670	0	0	0	4,277	0	11,547	0	3
25	0	3,670	0	0	0	4,277	0	11,547	0	3
26	0	3,670	0	0	0	4,277	0	11,547	0	3
27	0	3,670	0	0	0	4,277	0	11,547	0	3
28	0	3,670	0	0	0	4,277	0	11,547	0	3
29	0	3,670	0	0	0	4,277	0	11,547	0	3
30	0	3,670	0	0	0	4,277	0	11,547	0	3

Appendix G.23. Big Bay Creek daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Aug 13	0	0	0	0	5	5	0	0	0	0
14	0	0	0	0	7	12	5	5	0	0
15	0	0	0	0	15	27	19	24	0	0
16	0	0	0	0	4	31	15	39	0	0
17	0	0	0	0	224	255	88	127	0	0
18	0	0	0	0	15	270	5	132	0	0
19	0	0	0	0	8	278	9	141	0	0
20	0	0	0	0	2	280	9	150	0	0
21	0	0	0	0	5	285	12	162	0	0
22	0	0	0	0	0	285	10	172	0	0
23	0	0	0	0	8	293	26	198	0	0
24	0	0	0	0	9	302	24	222	0	0
25	0	0	0	0	3	305	14	236	0	0
26	0	0	0	0	22	327	29	265	0	0
27	0	0	0	0	18	345	20	285	0	0
28	0	0	0	0	23	368	32	317	0	0
29	0	0	0	0	0	368	3	320	0	0
30	0	0	0	0	0	368	17	337	0	0
31	0	0	0	0	0	368	48	385	0	0
Sep 1	0	0	0	0	10	378	74	459	0	0
2	0	0	0	0	5	383	37	496	0	0
3	0	0	0	0	3	386	110	606	0	0
4	0	0	0	0	415	801	68	674	0	0
5	0	0	0	0	132	933	38	712	0	0
6	0	0	0	0	100	1,033	12	724	0	0
7	0	0	0	0	83	1,116	46	770	0	0
8	0	0	0	0	2	1,118	19	789	0	0
9	0	0	0	0	214	1,332	38	827	0	0
10	0	0	0	0	18	1,350	8	835	0	0
11	0	0	0	0	0	1,350	0	835	0	0
12	0	0	0	0	0	1,350	0	835	0	0
13	0	0	0	0	0	1,350	0	835	0	0
14	0	0	0	0	122	1,472	9	844	0	0
15	0	0	0	0	19	1,491	4	848	0	0
16	0	0	0	0	0	1,491	0	848	0	0
17	0	0	0	0	0	1,491	0	848	0	0
18	1	1	0	0	7	1,498	1	849	0	0
19	0	1	0	0	3	1,501	0	849	0	0
20	0	1	0	0	0	1,501	0	849	0	0
21	0	1	0	0	0	1,501	0	849	0	0
22	0	1	0	0	7	1,508	0	849	0	0
23	0	1	0	0	5	1,513	0	849	0	0
24	0	1	0	0	0	1,513	0	849	0	0
25	0	1	0	0	0	1,513	0	849	0	0
26	0	1	0	0	0	1,513	0	849	0	0
27	0	1	0	0	1	1,514	0	849	0	0
28	0	1	0	0	0	1,514	0	849	0	0
29	0	1	0	0	1	1,515	0	849	0	0
30	0	1	0	0	20	1,535	0	849	0	0

Appendix G.24. Bear Creek daily and cumulative escapement counts for 1990.

Date	Sockeye		Chinook		Coho		Pink		Chum	
	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum	Daily	Accum
Aug 12	0	0	0	0	20	20	50	50	0	0
13	0	0	0	0	10	30	30	80	0	0
14	0	0	0	0	1	31	19	99	0	0
15	0	0	0	0	0	31	8	107	0	0
16	0	0	0	0	0	31	0	107	0	0
17	0	0	0	0	66	97	37	144	0	0
18	0	0	0	0	29	126	36	180	0	0
19	0	0	0	0	3	129	9	189	0	0
20	0	0	0	0	6	135	16	205	0	0
21	0	0	0	0	3	138	12	217	0	0
22	0	0	0	0	8	146	27	244	0	0
23	0	0	0	0	4	150	63	307	0	0
24	0	0	0	0	12	162	47	354	0	0
25	0	0	0	0	3	165	14	368	0	0
26	0	0	0	0	0	165	36	404	0	0
27	0	0	0	0	0	165	29	433	0	0
28	0	0	0	0	0	165	10	443	0	0
29	0	0	0	0	0	165	0	443	0	0
30	0	0	0	0	0	165	9	452	0	0
31	0	0	0	0	0	165	21	473	0	0
Sep 1	0	0	0	0	1	166	15	488	0	0
2	0	0	0	0	0	166	26	514	0	0
3	0	0	0	0	0	166	0	514	0	0
4	0	0	0	0	286	452	29	543	0	0
5	0	0	0	0	192	644	61	604	0	0
6	0	0	0	0	40	684	24	628	0	0
7	0	0	0	0	41	725	27	655	0	0
8	0	0	0	0	31	756	13	668	0	0
9	0	0	0	0	73	829	10	678	0	0
10	0	0	0	0	0	829	2	680	0	0
11	0	0	0	0	0	829	2	682	0	0
12	0	0	0	0	0	829	0	682	0	0
13	0	0	0	0	5	834	0	682	0	0
14	0	0	0	0	56	890	0	682	0	0
15	0	0	0	0	36	926	0	682	0	0

KODIAK AREA

ARTICLE 10.—KODIAK AREA.

5 AAC 01.550. DESCRIPTION OF KODIAK AREA. The Kodiak Area includes all waters of Alaska south of a line extending east from Cape Douglas (58°52' N. lat.), west of 150° W. long., north of 55°30' N. lat.; and east of the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (156°20'13" W. long.).

5 AAC 01.510. FISHING SEASONS. (a) Salmon may be taken for subsistence purposes from 6:00 a.m. until 9:00 p.m. from January 1 through December 31, with the following exceptions:

(1) from June 1 through September 15, salmon seine vessels may not be used to take subsistence salmon for 24 hours before, during, and for 24 hours after any open commercial salmon fishing period;

(2) from June 1 through September 15, purse seine vessels may be used to take salmon only with gill nets and no other type of salmon gear may be on board the vessel.

(c) Fish other than salmon may be taken at any time unless restricted by the terms of a subsistence fishing permit.

5 AAC 01.520. LAWFUL GEAR AND GEAR SPECIFICATIONS. (a) Unless restricted by this section or under the terms of a subsistence fishing permit, fish may be taken by gear listed in 5 AAC 01.010(a).

(b) Salmon may be taken only by gill net and seine.

(c) Halibut may be taken only by a single hand-held line with not more than two hooks attached to it.

(d) Subsistence fishermen must be physically present at the net at all times the net is being fished.

5 AAC 01.525. WATERS CLOSED TO SUBSISTENCE FISHING. The following locations are closed to the subsistence taking of salmon:

(1) all waters of Mill Bay and all those waters bounded by a line from Spruce Cape to the northernmost point of Woody Island, then to the northernmost point of Holiday Island, then to a point on Near Island opposite the Kodiak small boat harbor entrance and then to the small boat harbor entrance;

(2) all freshwater systems of Little Afognak River and Portage Creek drainage in Discoverer Bay;

(4) all waters closed to commercial salmon fishing in the Barbara Cove, Chiniak Bay, Saltery Cove, Pasagshak Bay, Monashka Bay and Anton Larsen Bay as described in 5 AAC 18.350, and all waters closed to commercial salmon fishing within 100 yards of the terminus of Selief Bay Creek and north and west of a line from the tip of Last Point to the tip of River Mouth Point in Afognak Bay;

(6) all waters 300 yards seaward of the terminus of Monks Creek;

(7) from August 15 through September 30, all waters 500 yards seaward of the terminus of Little Kitoi Creek;

(8) all freshwater systems of Afognak Island;

(9) all waters of Ouzinkie Harbor north of a line from 57°55'10" N. lat., 152°36' W. long. to 57°55'03" N. lat., 152°29'20" W. long.

5 AAC 01.530. SUBSISTENCE FISHING PERMITS. (a) A subsistence fishing permit is required for taking salmon, trout and char for subsistence purposes. A subsistence fishing permit is required for taking herring and bottomfish for subsistence purposes during the commercial herring sac roe season from May 1 through June 30.

(b) A subsistence salmon fishing permit allows the holder to take 25 salmon plus an additional 25 salmon for each member of the same household whose names are listed on the permit. An additional permit may be obtained if it can be shown that more fish are needed.

(c) All subsistence fishermen shall keep a record of the number of subsistence fish taken each year. The number of subsistence fish taken shall be recorded on the reverse side of the permit. The record must be completed immediately upon landing subsistence caught fish and must be returned to the local representative of the department by February 1 of the year following the year the permit was issued.

5 AAC 01.535. LIMITATIONS ON PARTICIPATION IN SUBSISTENCE FINFISH FISHERIES. Only those residents domiciled in the Kodiak Island Borough, except those residing on the Kodiak Coast Guard Base, may take salmon in the Kodiak Area. This restriction does not apply to the Mainland District, as described in 5 AAC 18.200.

5 AAC 01.545. SUBSISTENCE BAG AND POSSESSION LIMITS. The daily bag limit for halibut is two fish and the possession limit is two daily bag limits. No person may possess sport-taken and subsistence-taken halibut on the same day.

4



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